

FAR EASTERN ECONOMIC REVIEW

Vol. VI.

Hongkong, March 30, 1949

No. 13

FROM THE CONTENTS:—

Postwar Japan Agreements

H.K. Gold Tade

Trade with North China

East-Indonesia

H.K. Shipping Reports

Reports from Burma, Japan,

China's Resources

H.K. February Trade

Reports from Siam

Insecurity & Disintegration

From all over China come reports about disorders, riots, mutinies and general disintegration. The authority of the Kuomintang government is defied in every province and the discipline in the Chinese army, navy and air force in the areas under more or less nominal control of the Kuomintang has so seriously deteriorated as to confront the common people with the problem how to defend themselves against the depredations of these "national forces". That the Chinese military has been regarded as a state in the state is internationally well known, and so are the many facts about the officers' black-marketeering, organising of smuggling and running of extortion gangs; and the soldiers' habit of confiscating what they require from the country people and their near-amok running in the cities when their "authority" is not acknowledged. The breakdown of morale in the navy has recently been evidenced by the flight of the British donated cruiser "Chungking" to the Communists, together with the majority of British trained personnel. How unreliable the Chinese air force has been appears clear when the defeats of the Kuomintang armies are studied; with some loyalty on the part of the foreign trained and U.S. supplied Chinese air force there would have been less conspicuous a rout of the armies under Chiang Kai-shek's leadership. Dozens of U.S. fighter and bomber planes have gone over to the Communists and today the airforce remnants are suspect of collusion with what should be regarded as the "enemy". Although Nanking spokesmen now want to explain the utter lack of morale, discipline and loyalty on the part of the fighting forces as a result of the virtual non-payment of salaries and the corruption of the generals and the majority of the higher officer corps, the fact cannot be denied that the common soldier's, sailor's and airman's sympathies were with the Communists. The bad treatment meted out to the soldiers usually conscripted under repulsive circumstances unbefitting a civilised nation has been a secondary motive in the

wholesale defection of the fighting forces. In case of resumed hostilities—which must be expected although the current peace campaign blurs the sight—the Kuomintang will not be left with many to put up a real fight; as soon as conditions permit the defections will continue.

Meanwhile guerilla operations in many provinces of Central and South China continue although no large-scale actions occurred recently. The position of the major guerilla corps, allied to the People's Liberation army in the North, is being gradually consolidated. Everywhere in Kwangtung including the close vicinity of Hongkong, there are so-called insurgents expanding the territories under their control and the provincial army is unable, and obviously unwilling, to risk a combat with the elusive and otherwise militarily superior guerillas. Conditions in Yunnan are such as to presage the overthrow of the provincial authority within a few months. Many plots have been discovered by the Kuomintang army which all aimed at the disorganisation of authority and the assumption of control in important cities of South and Central China. Latest plots of considerable magnitude which were frustrated or restricted in an "affected" area occurred in Shanghai, Kunming, a number of towns in Yunnan, in Western Hunan, in Eastern Kwangtung.

Within the Kuomintang the party disintegration progresses at an alarming pace, old loyalties are forgotten and *saute qui peut* is the watchword of the moment. The serious break between the adherents of the Nanking peace suers under Li Tsung-jen's wings and the party stalwarts in Canton under remote control from Chiang Kai-shek at Fenghua is no longer concealed. What happens inside the provincial capitals where the system of warlordism still prevails is obscure but the general outline has become sufficiently clear, namely the struggle for power and retention of control by the provincial bosses irrespective of the decisions reached in Nanking, Canton or Fenghua. In order to play safe with the Communists who will finally emerge as the unchallenged source of power in China proper,

many provincial governors — active or retired but still up and scheming — are already trying to placate the new masters and will, as the case of the ex-Taiwan governor Chen Yi proves (who prepared to come to terms with the Communists but was then arrested by the secret police under Chiang Kai-shek's personal orders), show their political astuteness and toughness by turning in time against their former friends and thus saving part of the profitable substance for their retainers and concubines.

* * *

Liberation of Formosa

It is the contention of the Kuomintang that Formosa has to remain an integral part of China and that the peace conference which eventually will have to be convened to conclude the treaty with Japan should not concern itself with the status of Formosa. The views of the inhabitants of Taiwan are not generally known abroad; under the methods of repression and secret police activities the Formosans have been unable to express themselves in favour or otherwise of continued union with China. Formosans living outside their country have left no doubt about the deep sense of injury and dissatisfaction felt by the majority of Formosans vis-a-vis the predatory mainlanders and many Formosan exiled political parties and associations have petitioned the United Nations and the governments of the major powers to intercede on behalf of the native population of the Island and to grant the people full-fledged independence. The various governments of countries previously participating in the Pacific war have remained uncommunicative on the issue of Formosa's sovereignty and independence, preferring, no doubt, to leave the answer to this question to the future Japanese peace conference. The decisive voice in the ultimate decision on Formosa will be the United States — and it is fully so realised by the Formosans themselves. The record of Chinese rule in Formosa has been bad and nothing which has happened since the brutal rule of Chen Yi was removed did inspire any confidence in a slow return of good relations between the mainlanders and the natives. On

the contrary, the debacle of the Nan-king regime and the continued depredations committed by the large numbers of soldiers, carpet baggers, bureaucrats and fly-by-night businessmen seem to have further antagonised the islanders in city and country.

The attitude of the Chinese Communist Party has never been clearly stated but recently spirited attacks by the CCP on the U.S. alleged hold on the Island have led one to believe that the Peiping government would demand the retention of Formosa in the Chinese fold. This impression is however erroneous. While the CCP denounces whenever there is an occasion, and even without any occasion offering, the U.S., and thus tries to make political capital out of the presence of American forces in Formosa and of the support of the Island's economy by E.C.A. funds, nothing so far has been declared officially by the CCP with regard to the future status of Formosa. That eventually a "Formosan People's Republic" is to be established should be only natural with the CCP as with all other CPs; but whether this F.P.R. is to become autonomous or fully independent is a matter to be decided upon at a later stage and in conformity with the peoples' wishes. For the present, however, the CCP calls for the liberation of Formosa, a liberation from Kuomintang oppression.—a call in which the majority of the Islanders doubtless share—and from the occupation of the U.S.—a contingency which does not exist in fact.

Some U.S. naval and air force personnel is on Formosa for the time being, KMT troops were and possibly continue to be trained by U.S. officers, and E.C.A. supplies and financed reconstruction works are carried on. This, with the exception of KMT army training, is all to the good of the economy of the Formosans who appreciate the good work of the Americans which contrasts so much more glaringly with the outright or camouflaged looting by the KMT and its swarms of followers. From a strategic point of view Formosa does not interest the U.S. whose military forces and industrial potential is so fantastically superior to its oriental neighbours. But it would certainly be sheer folly to admit to Formosa any regime which declares itself openly hostile to the U.S.

For the duration of the "cold war" the liberation of Formosa as a CCP cannot be visualised and it is not improbable that the Formosans in the interim period may attain a high degree of autonomy if and when the KMT on the mainland is fully disintegrating. What the Formosans appear to demand with a great measure of unanimity is either full autonomy under United Nations or U.S. guidance, or complete independence. The holding of an internationally supervised plebiscite in Formosa at a not too distant date may clear up the position and introduce greater stability into the eastern Pacific area.

Anarchy in Burma

The multiple civil war over Burma with no hope for an early return to normal conditions is increasingly felt in its deleterious repercussions in all Far Eastern countries. Burma's huge rice export surplus on which many countries in this part of the world have to depend for their food is gradually shrinking due to the anarchy in that potentially rich area where Burmans fight among themselves and where the Karens and other non-Burman races are determined to emerge as independent nations. The situation, militarily and economically, has further deteriorated during recent weeks with more violent and wide-spread fighting carried on and without any prospects for compromise or even a truce. In our issue of February 23 (p.221) a general resume of the fighting groups was given; the principal combatants are the Government at Rangoon, under Premier Thakin Nu, the Karens (demanding full independence, no longer satisfied with autonomy), the People's Volunteer Organisation (P.V.O.) and the Communists, split into Stalinists and Trotskyists (or "white" and "red" flag communists).

Thakin Nu's Government expects a loan from British Commonwealth countries as the rump state's deficit runs now at £25 million even after a quarter of the civil servants have been dismissed. But there is no possible foundation for any foreign loan as long as the country is in the throes of anarchy. Rangoon will have to export as much as possible rice if a total collapse is to be avoided; a very improbable proposition considering that the majority of the rice growing area and 3 ports out of 4 are in the hands of the insurgents. In 1948, Burma's rice exports yielded £35 million (equal to total prewar exports, and more than double total prewar imports); for 1949 an optimistic estimate expects total rice exports at 1¼ million tons, against 3 m. tons pre-war. Rice in the postwar economy of Burma has accounted for 80% of total proceeds. Thus, if Rangoon cannot collect rice in the country and ship it abroad, the continuation of the internecine war would appear impossible. Rice exports from Burma in 1949 will indicate the outcome of the current multiple warfare.

The civil disturbances started in March 1948 when the Burmese communist Party organised strikes in Rangoon and in the oilfields. This action followed a strategic plan devised in February 1948 at the conference of most of Asia's CPs which was held in Calcutta. At that time the establishment of a Far Eastern counterpart of Europe's Cominform was supposed and its headquarters were then presumed to be in Harbin. The Burmese CP, with the assurance of the fraternal assistance of the powerful and more modern Indian CP,

came then to the conclusion that the Thakin Nu government was no longer considering the implementation of a nationalisation and expropriation program as demanded by the BCP, and therefore the party leaders decided to attempt the overthrow of the Rangoon government. Indian CP help was however ineffective and probably half-heartedly rendered; internal conditions in India also required the Indian CP's fullest attention as Pandit Nehru, although not proscribing the CP, tried to challenge under pressure of Congress the activity of the Indian communists. The Burmese CP's attempt at overthrowing Rangoon failed mainly because of the Karens' loyalty, but in the disbanded though not disarmed P.V.O. the Burmese Government was meanwhile confronted by as apparently implacable foe. Thus the BCP continued its harassing activities while the P.V.O., for a short while, took the limelight in the fight against Thakin Nu without being able, however, to emerge as more than a nuisance though a very serious one, to the Government.

The situation became menacing for Rangoon when towards the end of 1948 the Karens, dissatisfied with the delay on the part of the Government to grant full autonomy, revolted and as a result of their military successes demanded independence. A military co-operation agreement between the Karens and the BCP ("white" flag communists) has been arrived at for the time being but the P.V.O. and Trotskyists ("red" flag communists) are both fighting against the Government and the other insurgents. Thus the constituents of the war-time "Anti-Fascist People's Freedom League", which also ruled for a short while Burma after it became an independent state, are warring against each other; the assassination of the League's leader, Aung San, brought about the final split among the various groups which, since the end of war, maintained an uneasy form of cooperation.

While all political groups are agreed on socialism as the system of government in Burma—with the Karens and other tribes (Shans, Chins, Kachins) demanding in addition autonomy or independence—the two communist parties stand for immediate nationalisation without compensation and the supremacy of the Marxist-Leninist-Stalinist, respectively-Trotskyist, ideology in the state. The democratic socialists for whom Thakin Nu speaks object to an uncompromising revolution and defy the bid for power by the 2 CPs.

There are four economic fields which the Government wants to nationalise by offering some sort of compensation. First, there is the question of land nationalisation with the ultimate objective of collective farming in all of Burma but as about half of the rich agricultural land in Lower Burma is owned by Indian Chettis (who have the Indian Government's support) the

TRADE AND FINANCIAL AGREEMENTS OF POSTWAR JAPAN

System of Bilateral Trading

The international fiscal and trade policies that the Occupation authorities in Japan have followed were, in the first days, influenced primarily by military and political security considerations. Now, 3½ years afterwards, Japan's trade is still set in patterns established when the guiding principle was complete international isolation for the Japanese people, and

question of compensation is most irksome. It is not only the price of land but the form of payment which baffles negotiators. Secondly, there are the forests, large tracts of which are owned by British and other foreign companies. These foreign assets have meanwhile passed into the hands of the Burmese Government without any agreement as to compensation so far being made and operations have come to a standstill. The Burmese Government offers about £2.3 million while the owners demand £4.6 m. Thirdly, there is the Irrawaddy Flotilla Co. which the Government wants to acquire by paying £¼ m. against a claim of £1½ m. Fourthly, the question of the properties and the operations of the Burmah Oil Co. is one of greatest significance for the country as the British owners, realising the force of the nationalisation policy, refuse to rehabilitate any further their installations which should have consumed £17 m. The company have however already after the war invested some £7 m. Current oil production is around 10,000 barrels (prewar 17,000) which is not even sufficient to cover domestic requirements. In all cases of proposed or actual nationalisation the Burmese Government offers to pay only in non-convertible rupee bonds, a proposal which is rejected by the private owners. In fact, nationalisation with this type of compensation amounts to expropriation as far as transfers of capital out of Burma is concerned.

Whatever the eventual outcome of the negotiations between the Rangoon Government and the private interests in Burma there can be no doubt that foreign investments of any kind will be unavailable in future. The technology and the financial resources of the Burmans are entirely inadequate to build up a prosperous nation in spite of the unparalleled wealth of the country. When, however, the war clouds will eventually be dispelled and peace will return to the various races inhabiting Burma, a new survey of the situation may be made with a view to determine whether foreign aid and participation is required and under what terms. It is a most probable outcome of the present chaotic conditions in Burma that there will be two or more states emerging in the territory which is now called Burma.

when all external matters had to be handled by Occupation personnel. With this in mind, existing trade and financial agreements and the methods of trade and exchange control in Japan become comprehensible.

During the first two years of the Occupation, trade with Japan was confined to the government level; all foreign trade buying and selling was accomplished between Occupation authorities and representatives of foreign governments in Japan. As a defeated enemy country, Japan was entirely without external assets; all foreign currencies, silver, gold, and external accounts were impounded. The United States Treasury did not come directly to the aid of Japan's foreign trade. Assistance from the United States then (as now) was largely in the form of shipments of relief supplies, food, fertilizer, petroleum, medicines to Japan. Trade had to be financed with the proceeds of Japanese exports and, as the Occupation had almost no funds to use as working capital in trade, barter arrangements were sought. Government "open accounts" were the solution; credit and debit entries for shipments were kept in government books, and net balances due were to be paid in transfers of U. S. dollars semi-annually. Such open accounts, with all transactions handled by government representatives, were the first agreements.

Beginning in August 1947, a limited amount of private trade was authorized; "buyers" were permitted to come to Japan but they could purchase only from SCAP (Supreme Commander for the Allied Powers) and the Japanese Government, and could sell only to SCAP. Since then steady, if slow, progress has been made towards returning Japan's trade to business men, and to currency channels. The government "open dollar accounts" have been substantially modified to permit private trade conducted through banking transactions. While Occupation authorities still manage all purchases of imports, exports now are sold directly by Japanese exporters to buyers.

The dependence of Japan upon United States financial aid in the form of "relief supplies" and fund for industrial raw materials to stimulate recovery amounts to US\$472,000,000 from the American Congress mentioned, purchases in the United States of raw cotton, coking coal, dyestuffs et cetera, using export proceeds create a dollar problem for Japan less publicized but perhaps more acute than for any country in Europe. An American Occupation carrying Japan's balance of payments deficit in dollar appropriations anchors Japan firmly as a "dollar" country in trade. Germany likewise has become a "dollar" country.

Occupation authorities, despite the "dollar problem", have negotiated a series of financial and trade agreements that, more than any other commercial endeavours, are having expanding and reactivating effects on Japan's trade. Existing international agreements are summarized below.

Hongkong: Traders from Hongkong pioneered the opening of Japan to commercial trade; the first "open account" between the Occupation and a trading area was with Hongkong. It is likely, in fact, that the then Hongkong Agent in Japan, John Galvin, first suggested the principle of the open account to the Occupation as a solution to the currency difficulties in government trade. When Japan was opened to private trade in August 1947, the principle of the two way government account in U. S. dollars was maintained, but the procedure was modified to permit private transactions. Exporters from Hongkong are paid by the Hongkong Government account in Hongkong dollars; importers must pay the Government Hongkong dollars for their credits. Control of credits and debts is maintained by the Hongkong Government operating through the banks and a Government Agent in Tokyo. Credits and debts are maintained centrally in U. S. dollar and, by agreement, net balances in the central accounts are to be settled in U. S. dollars semi-annually.

To date, the account has been so well managed, from the point of view of Hongkong, that no transfer of U. S. dollars to Japan has been necessary. Consequently, while credits for purchases in Japan have always been scarce—the chronic problem has been to find raw materials to sell to Japan to finance purchases—and while Hongkong exporters to Japan now receive for their own use only 40 per cent of the return exchange from their shipments, no criteria of "essentiality" has been applied to Japanese purchases and the trade has been brisk.

Almost all Hongkong's credits are the result of entrepot trade. Previously, raw materials from China, Siam, French Indochina, the Philippines, Malaya, Burma, and India made up the bulk of shipments to Japan. As the Occupation completes and elaborates trade and financial agreements with other countries, most frequently the countries from which Hongkong had earlier supplied raw materials to Japan, trade is expanded in volume but entrepot through Hongkong is frequently prohibited. Thus, Hongkong in its search for credits in Japan must go further afield for entrepot trade, to the Middle East, to North China, perhaps to Europe and South America, as these are still areas where bilateral agreements with Occupied Japan do not exist—as yet.

Sterling Area: A Payments Arrangement for trade was completed in May 1948 including the United Kingdom, all colonies and protectorates (except Hongkong); Australia, Ceylon,

Eire, India, New Zealand, Pakistan, South Africa, Southern Rhodesia, Burma, Iceland, Iraq, and the Persian Gulf Sheikdoms. In addition, under certain circumstances, sterling payments are permitted from Iran and the Sudan.

This arrangement provides for the use of sterling currency in trade from and to the area mentioned with a guarantee against the accumulation by the Occupation of unusable sterling; balances of sterling that SCAP may hold are convertible to dollars semi-annually if such holdings are in excess of the Occupation's anticipated requirements for a substantial period. Because of the ultimate risk of sterling convertibility, Japan is classified as a hard currency area and purchases in Japan are limited to those classified as essential. To lessen the dollar risk inherent in the trade, entropot is discouraged, particularly, if it results in goods having their origin in the Sterling Area moving to Japan without resulting in a direct outpayment from SCAP's sterling accounts.

A Sterling Area Trade Agreement including the UK and Colonies, Australia, India, New Zealand and South Africa was negotiated in November 1948 for the year July 1948 to July 1949. It provides for trade to the value of US\$113,000,000 each way. With the exception of Australia and South Africa who will buy somewhat less than they anticipated selling, and the UK and Colonies who will buy somewhat more, for each of the major participants the trade with Japan is approximately balanced bilaterally.

The basic principle of this agreement, as enunciated by the Sterling Area, is to trade at the highest level practical without risk of loss of dollars. All trade is to take place through fiscal instruments; "open accounts" or other barter transaction that do not involve sterling payments for each transfer are prohibited.

These agreements suffer from statistical inadequacies, largely Japanese, and from general over-management. SCAP has now accumulated sterling deposits from shipments to the Sterling Area about equal to the Occupation's commercial credit indebtedness in sterling. But the statistical problem essential to maintaining the various balances, bilaterally for each of the participating areas, and the general balance for the Sterling Area as a whole, including the Dominions not members of the Trade Agreements presents irritating problems in uncertainties that are resulting in repressed trade.

There is a great deal of premature concern on the part of British authorities that SCAP may suddenly demand dollars for unusable sterling. SCAP officials, on the other hand, do not now have or see "unusable" sterling in the near future, and are concerned because they have been unable to negotiate medium term sterling credit and are limited to 120 day letter of credit financing. Because sterling is short, SCAP tends to res-

trict purchases in sterling particularly of the less essential raw materials. Because of the dollar risk, Sterling Area authorities limit purchases made in Japan. This unmercy-go-round may be stopped and a clearer statement of the phasing of the trade plan may emerge in the Sterling Area trade talks to be held in Tokyo beginning in March. Clarification of the trade plan will be achieved if more reliable estimates of future positions can be achieved. Futures are now lost in a haze of contracts that are signed that never are followed by letters of credits, letters of credit that are established but lapse before shipments take place; and, in purchases withheld by SCAP because the Occupation thinks its funds or credits are inadequate.

Burma: This country, a member of the Payments Arrangement, sent a trade mission to Japan, and a draft plan envisages trade to the value of \$23,000,000 each way in the first year. Even though the trade is conducted in sterling, the Burmans are following the principle of bilateral balance rigidly. Success of this agreement hinges almost entirely upon future allocations by the IEF (hoped for in July 1949) of Burmese rice to Japan; of the total planned exports from Burma, 80 per cent is rice, the sale of which is to be managed by the Government. The Trade Arrangement has not yet been accepted by the Burmese Government and contracts negotiated in Japan have not been approved perhaps because of the recent civil commotion in Burma.

China: Trade is conducted through two government accounts: Account A for barter trade managed by the Central Trust; and Account B for private trade. Banking channels are not used between the two governments and records are kept in U.S. dollars with provisions for semi-annual clearances. All transactions are approved by the Chinese Mission in Japan. Account A has had a credit balance, as might be expected, in favor of Japan of \$7,000,000 to \$8,000,000, and the account has been unbalanced and unsettled for more than a year. Because of this debt, account B (for private trade) is required to have a credit balance in favor of China before purchases are permitted in Japan. Both the Chinese Government and the Occupation have found it convenient, when transactions of interest could not, for price and other reasons, be managed through the two way accounts, to permit purchases in free U.S. dollars through American, Chinese, and other brokers. This, of course, has been a one-way street; the Occupation has bought iron ore, sugar, and other commodities for free U.S. dollars; the Chinese have not permitted any free dollar purchases in Japan. Trade through the open account has been slow, inefficient, and beset with juridical fighting between Chinese agencies such as Central Trust, Natural Resources, the Chinese Mission in Japan and other authorities in Nanking and Shanghai. There is no trade plan.

The Netherlands and Indonesia:

Both a financial and trade agreement were completed in December 1948. The financial part provides for private and Government trade in terms of U.S. dollar letters of credit and other bank instruments. Credits and debits resulting from these transactions are maintained in the books of the two Dutch banks in Tokyo, and clearances in "free" U.S. dollars are provided for every four months in the case of the Netherlands, and every three months for Indonesia. Trade with Holland in the next year was planned as approximately balanced at about \$500,000 each way. Sales by Indonesia were estimated at \$23½ million and purchases at \$63,000,000; therefore, a transfer of \$40,000,000 to Japan would be necessary during the year. Balances in the accounts would be transferred in free U.S. dollars at the quarterly period if the amount had been credited for two months or more. A month's period is permitted for effecting transfer. This planned for imbalance of \$40,000,000 was approximately equal to the anticipated transfers of ECA dollars to the Dutch for off-shore purchases for Indonesia. The recent action of the ECA in withholding any further funds for the Dutch in Indonesia until there was a political solution, satisfactory to the Americans, has disturbed the trade plan with Japan. The Dutch have notified authorities in Japan that the purchasing called for in the trade agreement could not now be undertaken, and the volume of sales to Indonesia, until there was a renewal of ECA aid, would depend upon Japanese purchases in Indonesia.

From present clear indications, the Dutch intend to operate the financial and trade arrangement so as to distribute the trade among Dutch companies and through Dutch banks. Entropot trade through Singapore, historically of major importance to Sumatra, in the future will be discouraged by the Dutch. The Occupation will have no objection so long as entropot through Singapore is demonstrated not to reduce the volume of direct sales and so the amount of free dollars that Japan may derive from Indonesia.

French Union: A financial arrangement of the previously standard type establishing two open accounts, one for Indochina, and the other for all other French territories, is now in effect. Accounts are kept in dollars and settled semi-annually. All sales and purchases for either account must be approved by the French Mission in Tokyo. The agreement provides for private trade and, as implemented, the official exchange rates between francs or piastres against U.S. dollars are used by traders for trade through the accounts. Private trade may be conducted from the French Union if the firm has established residence within the Union.

As the French maintain they are unable to transfer dollars to Japan to settle balances, and their unsatisfied demands for Japanese exports are

large, purchases in Japan are limited by the ability of the French to export to Japan. In consequence, controls will be operated by the French against entrapment in exports of French goods, while the purchase of Japanese goods in soft currencies through third countries will probably be encouraged.

Sweden: A trade agreement anticipating approximately \$6,000,000 for the next year in commodities each way was completed in November 1948. The Swedish Government requires that all trade with Japan be balanced, not only in general, but in each individual transaction. Therefore, trade which is entirely private is conducted exclusively by means of U.S. dollar back-to-back letters of credit.

Siam: In December 1948, financial and trade agreements were completed calling for \$20,000,000 trade each way within the next year. This trade is to be settled in terms of U.S. dollars semi-annually, and the responsibility for such settlement is between the Government of Siam and SCAP; however, private trade is provided for using normal banking channels. For imports to Siam, instead of letters of credit, traders will have to purchase bank letters of authority in Siam. Such letters of authority will be issued after application to the Ministry of Commerce. For exports, while SCAP will issue letters of authority, approval of the transaction must likewise be obtained from the Siamese Ministry of Commerce. The implementation of this agreement was announced on February 7, 1949, but trade under the terms of this arrangement has not yet started.

A particular currency difficulty will arise under this agreement. The Siamese intend to use the open market rate for the tical (baht) against U.S. dollars in the purchasing of letters of authority; the official rate for ticals is 10 to \$1; the open market rate about 20 to \$1. At this premium rate for U.S. dollars, Japanese goods bought through Hongkong or Singapore will be 20 percent cheaper in ticals than those bought directly from Japan. The commercial rate of 20 to 1 for ticals may stimulate exports from Siam, but it will, of course, limit imports from Japan unless entrapment of Japanese imports from other countries is prohibited. The success of this agreement will be directly related to the efficiency and rapidity with which the Siamese Ministry of Commerce processes the applications for letters of authority.

Uruguay: In February 1948, an understanding was achieved providing that import licenses may be opened in Uruguay to the amount required to compensate purchase previously made in Uruguay by Japan. In practice, because of little direct trade connections with Uruguay, Japan's purchases are substantially ahead.

Other Countries: SCAP is now conducting trade talks in Tokyo with Belgian authorities, with the French again, and will soon begin discussions with Korea and the Sterling Area. A SCAP Trade Mission is now in Pakistan, and one is planned to visit seven South American countries; such missions are new activities for SCAP.

Summary:

In trade the Occupation, a government-over-a-government, is subject to four chronic institutional diseases: bigness, slowness, the inertias of two bureaucracies, and localism—the instance that all business must be concluded in Japan. Although it is an apparent contradiction in terms, it remains true that Japan's foreign trade is still conducted with Japan; purchases and sales are negotiated here with foreign missions and with private traders; Japanese have not yet been permitted to go ahead, or to establish agents abroad; the Occupation does not maintain trading offices or agents outside Japan.

As an institution, the Occupation will not buy or sell in soft currencies, and may not, for some time to come, itself hold or handle any currencies other than U.S. dollars and sterling—sterling with suitable guarantees of convertibility of unusable balances to dollars. By means of the agreements reviewed above, the Occupation avoids doing business in soft currencies, and there are always guarantees by governments that net balances arising from trade will be paid in U.S. dollars. The consequence of trade in this manner is to strengthen the government controls of the other party to the agreement, and perhaps to enhance trade along nationalistic and local lines; for example, Siam, the French Union, Hongkong, and others, under the terms of present agreements, not only license imports, but approve all export transactions as well. Foreign currency transactions except for sterling all take place outside Japan; ticals, guilders, Hongkong dollars, francs, piastres are paid by businessmen for credits abroad under trade agreements, or collected by merchants from their local governments for shipments to Japan. But to the Occupation, it all appears as U.S. dollars in the accounts, and free U.S. dollars for balances at clearance periods.

The major positive contribution of the agreements is to raise the levels of trade by establishing the principle of compensating purchases associated with sufficient controls against an intolerable drain of dollars or gold. The trade and financial agreements reviewed have in most cases increased the volume of trade two to three times over the previous year. When a trade agreement is completed, Occupation authorities feel free to purchase as they feel certain that imports will be covered by exports to the same country; therefore, when prices are competitive, trade inevitably tends to the areas where agreements exist.

In sum, to the credit of the Occupation, American official predilections for multilateralism and for "free trade" have not kept American officials in the Occupation from subordinating themselves to their job in hand—to reactivate Japan's trade on a bilateral basis because, unfortunately, it is a bilateral trading world.

Reports from Japan

Motor-vehicle registrations in Japan in May 1948 numbered 209,002 units, a decline of 459 from the April figure. Standard-size trucks and busses, the most important commercial vehicles, increased 337 and 274, respectively, over the April totals. Registration included 31,242 passenger cars (20,535 standard size and 10,707 small size); 148,769 trucks (95,558 standard, 53,211 small); 13,270 busses; and 15,721 fire engines, ambulances, and certain other types (13,839 standard, 1,882 small). Of the total registered, 10,514 passenger cars, 48,541 trucks, 3,908 busses, and 5,425 special vehicles were not in operation owing to lack of fuel, tires, repairs, or other reasons.

Japanese production during October 1948 included the following items: Sewing machines, 18,289 units, of which 16,618 were of the household type; clocks, 170,396 units; watches, 56,123 units. The production of sake bottles in Japan has been resumed. Output planned for the month of November 1948 was 500,000 bottles.

A new type of coal-loading machine is being developed by the Hitachi Manufacturing Co. Ltd., at Kameari. It is designed to load coal onto a conveyor proceeding along a long-wall face after the coal has been undercut and shot down. Although still in the experimental stage, the machine appears to be strongly built and adaptable to Japanese long-wall mining methods.

The number of companies in Japan engaged in manufacturing dyes increased from 36 in September 1948 to 41 in October, whereas the number of plants rose from 45 to 49. Output of dyes in October was 567 metric tons, approximately 10 percent below the September postwar high of 625 tons.

The total supply of imported and domestic fertilizers in Japan for the year August 1948—July 1949 is estimated at 1,469,000 metric tons of nitrogenous, 1,034,000 tons of phosphatic, and 17,484 tons of potassic. Superphosphates will be supplied by domestic production.

Production of sulfuric acid in Japan in the first 9 months of 1948 totaled 1,434,725 metric tons. Output reached a monthly postwar high of 175,826 tons in May.

There will be a chemical section in both the foreign-trade and industrial divisions of the trade fair to be held in Yokohama. The plastics industry will have an exhibit.

The Political and Economic Situation of the State of East-Indonesia

POLITICAL SITUATION

Before the war the present State of East-Indonesia belonged to the Outer Provinces, i.e. the part of the Netherlands-Indies outside Java and Madura. Its contact with the Dutch dates from the beginning of the seventeenth century, when the first Dutch fleets sailed for the fabulous Spice-Islands, somewhere in the mysterious East. Spices were the much wanted and highly paid for merchandise on the European markets. Jakob van Neck was the first Dutch admiral who visited the Moluccas and filled the holds of his ships with the precious cloves, nutmegs and pepper. After a fierce struggle the Portuguese were driven out of the Moluccas and during a century the history of trade in the newly discovered archipelago centred in these Spice-Islands, East of Celebes. Later on the importance of the Islands diminished considerably and Java became the nucleus of the Dutch empire in the South-East-Asia area. When at the turn of the nineteenth century the industrial development of the Netherlands-Indies made rapid progress, the Great East (Grote Oost) fell behind. Possessing no minerals worth mentioning, Java and Madura became the Islands in which Western capital wanted to invest its money.

When at the close of 1945 the Japanese veil that had covered the Indonesian Islands for almost four years, was lifted, a new page in the age-old fascinating history of Indonesia had been turned up. Nationalism, already rapidly growing before the war, had become the general feeling and very soon the Dutch began to understand that their conception of the reconstruction of their Kingdom was not that of the Indonesian Republican leaders in Djogjakarta. These leaders pretended to speak in the name of the whole of Indonesia but before long it became clear that only on Java and Sumatra the Republicans had the backing of a considerable part of the intellectuals. Nationalism existed throughout Indonesia, but many prominent Indonesians outside the Republic made a sharp difference between Nationalism and Republicanism. As early as 1927 the well-known Dr. H. Colijn, once Prime Minister of many a Dutch cabinet and an expert on matters dealing with the Dutch East Indies wrote about a federation of Indonesian States. In the same year the question about federation or unitary state was discussed at a meeting of prominent nationalists, where Dr. Ratu-Langie defended the federative idea and Mr. Sartono carried the opposite idea. So the idea of a United States of Indonesia was not new and those Indonesians who recognised it after the war were strongly supported and stimulated by the late Lieutenant

Governor General, Dr. H. J. van Mook. At last these men met each other at Malino, a little town in the mountains of South Celebes about forty miles from Macassar, in July 1946. In December of the same year another conference was held at Denpasar, the capital of picturesque and world-famous Bali and here on the eve of Christmas, December 24th, the State of East-Indonesia was born.

The new State, the boundaries of which were laid down in the so-called Denpasar-Rule, comprised the area east of Borneo, Java and Madura except Dutch New Guinea. So Celebes and dependencies, the Lesser Sunda Islands and the Moluccas were all part of this new creation, which covered an area of over 150,000 square miles or 17% of Indonesia.

In all about twelve million people inhabit this vast territory, speaking various totally different languages, such as the Balinese, the Ambonese, the Torajas, the Bugese, the Minahassas, the Macassars etc., and having widely divergent customs. Contrary to the rest of Indonesia the population is not predominantly Islamic. The Protestant and Roman Catholic missions have been working in many parts of East Indonesia for decades and apart from 1½ million Hindus on Bali, there are 1¼ million Protestants and the Roman Catholic religion is professed by over half a million people. The town of Macassar, situated at the South-Western tip of Celebes and once the seat of the powerful Gowa-Dynasty, was chosen as the capital of the new nation. It had been for centuries the principal centre of trade in these regions and it was evident that it was bound to grow rapidly in population and import as soon as the administrative apparatus of the State would begin to work. In less than two years the number of residents more than doubled and at this moment over 200,000 people are living and working in it. Its shipping surpasses that of Surabaya and is now almost equal to that of Tandjung Priok, the port of Batavia. How important this shipping is, is demonstrated by the fact that in 1946 the total capacity of the merchantmen visiting Macassar was nearly 3 million cubic metres, in 1947 it was over 6½ million cubic metres and during the ten months of 1948 it already surpassed 1½ million cubic metres.

At the head of the State is a President. The present holder of this office is the Balinese nobleman Tojokorde Gde Rake Sukawati, who was chosen in Denpasar by the representatives of the 13 Daerachs (provinces with a great deal of autonomy) of East Indonesia. Nine Ministries form the administrative apparatus of the country, viz: home affairs, economic affairs,

justice, finance, education, information, health, transport and water-works and social affairs. The cabinet consists of ten members, viz: nine ministers and one minister without portfolio. Only one of them, the minister of Finance, is a born and bred Dutchman. Prime minister is Ide Anak Agung Gde Agung, again a nobleman from Bali, and son-in-law of the President. He is a very active, young politician, who understands quite clearly that his country needs rest and time to develop itself into a modern state. He is one of the prominent federalists and took the initiative for a meeting of the leading statesmen of the already existing federal *Negaras*—states—in Bandung the Bandung Federal Consultation, which drafted a resolution that was presented to the Dutch Government and was for the greater part accepted by it. Ide Anak Agung Gde Agung, a name to remember as its bearer will go far in the future.

The Legislative Body or Provisional Representative Body as it is called here, has eighty members. Most of the members were chosen in a democratic way by the population of the various regions, with a few corrective denominations to guarantee the representation of racial minorities (Europeans, Eurasians, Chinese and Arabs). This Parliament is provisional because as soon as the constitution will be ready and accepted by it, this assembly will be dissolved and general elections will be held. It is generally expected that in April 1949 this will be the case. Although East-Indonesia does not yet know a political party system, in Parliament three groups were formed in which the representatives who were in general of the same political mind found each other. These groups have their own platforms as well as their own leaders. By far the largest of these groups is the Progressive Faction with 34 members, the National Faction consists of 18 representatives and the Democratic Faction numbers 7 members. The Eurasians, the Europeans, the Chinese and the Arabs have their own appointed representatives while a number of Indonesians are non-party.

ECONOMIC SITUATION.

Compared to that of Java, Sumatra and Borneo the economic importance of East-Indonesia is not very spectacular. It is not an industrial country. No rich oil-wells attract foreign capital and bring wealth to its citizens. As to the plantation agriculture the same can be said. No rubber is cultivated in its woody valleys, no sugar-, coffee-, tea- or tobacco plantations worth mentioning are to be found within its boundaries. In middle Celebes some iron, coal and nickel are dug up, near Menado; in the Minahassa sulphur and gold is found, while the Banggai archipelago has mica and the island of Buton bitumen. On Ceram—one of the Moluccas—some oil is produced.

Yet the economic development of East Indonesia after the war is remarkable and is largely based on copra, the dried kernel of the coconut, one of the principal raw materials in the manufacture of margarine and soap. In 1939 the copra export of the Netherlands-Indies amounted to 530,000 tons, of which 315,000 tons came from the Islands that now form East-Indonesia. How important this copra is for the population is clearly demonstrated by the fact that in the above mentioned years only 25,000 tons of the total production came from the large estates and 505,000 tons or 95% from the natives. In East-Indonesia about 75% of the population depends directly or indirectly on the proceeds of copra. In the same year—1939—60% of the value of Macassar's total export came from copra.

During the Japanese occupation the export of this product came to a complete standstill and as a result of this the copra-culture rapidly decayed. After the war it was necessary to make a new start. The so-called Copra Fund—a government institution—is the chief organisation for stimulating the rehabilitation of the coconut culture. It started its work in 1940 as soon as the German victories in Europe made most of the markets in that part of the world inaccessible. It bought up the stocks so that the producers received money for their crops and labour and could provide for their wants. Immediately after the Japanese collapse this useful institution started to work again. The difficulties that were encountered were almost insurmountable. The ports of loading were ruined by allied air attacks, the godowns were burned down, the inland roads had been neglected for years and above all the interinsular traffic by means of coastal vessels and praohs had come to a standstill. A very great part of the economically very important praoh-fleet was destroyed and the Royal Dutch Package Company was not yet able to start its work on a reasonable scale. So apart from other problems the question how to collect the copra and carry it to the principal port of exportation—Macassar—had to be solved. But at the end of 1946 the rehabilitation had virtually begun and in that very unfavourable year 102,000 tons of copra were collected by the Fund, 76,000 tons of which were obtained from the new production. In 1947 the East-Indonesian producers delivered 175,000 tons of copra of which 153,000 tons were exported, having a total value of 85 million guilders. The rise in the production is steady and in the course of 1948 the Fund collected more than 260,000 tons of copra, not including the Islands of Bali and Lombok. These figures do not give, however, a fairly accurate idea of the productive capacity of East-Indonesia. Post-war circumstances compelled the population to use part of their crops to press

oil for home consumption. This caused, of course, a considerable waste of raw material.

It stands to reason, that as soon as prices drop on the world-market this source of prosperity will no longer flow so richly and the government will do well to look for other means to place the economy of the country on a safer basis.

Another and more reliable means of livelihood is fishing. Rice and fish are the ingredients out of which an Indonesian meal exists and so the fishery industry has at its disposal a never failing home-market. A clear distinction must be made between sea-fish and fresh-water fish. Although twenty years ago fresh water fisheries did hardly exist in East-Indonesia today it is very important. The lakes of Celebes and especially lake Tempe in the Daerah, South Celebes, abound with fish. In 1937 two species of fish hitherto unknown on Celebes were planted in lake Tempe and after some years the result was amazing. In the coastal districts of Celebes fish is reared in the fish-ponds, while on the rice-fields carps are set out in increasing quantities. The total proceeds of the inland fisheries in 1946 amounted to 15 million kilograms, the market-value of which was 30 million guilders. The blue seas around the numerous Islands of East-Indonesia teem with fish. The inhabitants of the coastal districts who already centuries ago felt more at ease in their tiny boats than in their poor villages never failed to take the advantage of their favourable geographic position. But they were never able to meet the demand of the Indonesian home-market and huge quantities of dried and salted fish had to be imported from Indo-China. The government, however, fully understands how important the application of scientific methods may become in the near future and trials are made with modern fishing-boats, fish-carriers, which can transport the dried and salted fish to the central markets. At the same time the tinning of fish especially tunnies is given a serious trial and it may be expected that in about five years fish will be one of the main articles of export of East-Indonesia. In 1947 the total export of dried and salted fish amounted to 5,234,880 kilograms with a value of 9½ million guilders. In the same year the fishers of South Celebes delivered 60 million kilograms of fresh fish, i.e. 20 million kilograms more than in 1940. The expectations for this daerah in 1948 were 75 million kilograms! From this it will become clear how very important this industry is for the national prosperity of the young state.

The agricultural activities of the population are mainly directed to the cultivation of rice and maize for home consumption. The prices of other food-stuffs and commodities are determined by the price of rice. Rice is grown

in East-Indonesia on wet as well as on dry lands. The average annual crops can safely be estimated at 1,505,000 tons of which about 20,000 tons are exported to other parts of Indonesia. Great and expensive irrigation works are under construction in the Northern part of the daerah South Celebes, the so-called Sadang works. It is expected that after the completion of these water works in 1953 East-Indonesia will have a rice surplus of about 150,000 tons per year and other parts of the United States of Indonesia will then be able to buy rice in their own country. At the same time a trial is made on the Island of Timor with the mechanical planting of rice. The first effort in 1946 was a failure, but experts believe that reasonable results are very well possible as soon as enough experience will be gained with these new methods in tropical regions and they also believe that in these densely populated areas the food problem can be solved by the application of modern methods of agriculture, i.e. by using machines. The other Asiatic countries will study the results of these East-Indonesian efforts, which may help to tackle the problem of feeding the hungry millions of Asia.

As regards maize no exact figures can be given. The only district with an annual surplus is South Celebes, which before the war exported about 50,000 tons. According to rough estimations the twelve million inhabitants of East-Indonesia use 415,000 tons of maize themselves every year or about 35 kilograms per head.

Another source of income is the breeding of cattle, in particular of buffaloes, goats, pigs, horses and sheep. The export of these breeding products amounted in the rather unfavourable year of 1946 to 3 million guilders, while in the same year over 400,000 guilders of hides were exported. The yearly home-consumption is estimated at 100,000 cows, oxen and buffaloes, 20,000 sheep and 50,000 pigs.

From the above it will be understood that East-Indonesia has a fair chance to become Indonesia's food-reservoir in the future and it is in this direction that the country will have to develop itself.

THE NATURAL RESOURCES OF CHINA

AGRICULTURE—FOREST RESOURCES—LIVESTOCK—MINERAL RESOURCES

By CHI-YUN CHANG

(Professor of Geography, National Chekiang University, Hangchow)

(COPYRIGHT in this Survey is vested in the Sino-International Economic Research Centre.)

AGRICULTURE

China's agriculture is mainly of two types: grazing and farming, which coincide with areas of interior drainage and those of exterior drainage respectively. In the farming region the fundamental division of agriculture is the conventional one, that is between the South and the North. In addition to rice, the typical products of South China are silk, sugar and tea. The staple crops of North China are wheat, millet, kaoliang and beans. Overlapping the two and stretching North of the Yangtze to the Hwai River, a distance of some 150 miles, is an intermediate region which shows the agricultural features of both regions.

(1) Rice, Wheat, Kaoliang, Millet, Corn

China as an agricultural country is highly cultivated. Crops are grown in about 90% of the farm areas, and about 80% of the cultivated lands are planted with the five main cereals and soy beans. The distribution of these six leading crops is shown as follows:

	Percentage of acreage	Production (1931-1935) (1,000 piculs)
Rice	17	1,020
Wheat	21	520
Kaoliang	9	270
Millet	9	250
Corn	6	170
Soy Bean ...	10	270

Rice The Chinese cultivated rice in Kansu as early as the neolithic time. But in the Yellow River basin where the Chinese civilization started, rice was not an important crop. Rice climates are characterized by high temperatures, an abundance of rainfall and a high humidity during the growing season. These very conditions exclude the possibilities of raising other cereals, at least during the growing season of the rice crop.

To the climatic requirement must also be added an abundant supply of fresh water for irrigation. Rice fields are covered with water, usually when the plants are from six to eight inches high, and the ground is submerged under three to six inches of water until the crop is nearly mature. Rice is produced on a variety of soils. The outstanding requirement of the soil is the ability to hold water over the surface for a considerable period.

Rice is the staff of life in southern China where double crops or triple crops—south of the Nanling Range—are raised. In northern China, a country of lower and irregular rainfall, rice fields are provided by irrigation works and rice of the Ningsia Plain and the Kansu Corridor is renowned for its ex-

cellent quality. Upland and paddy rices are relatively important crops in eastern Manchuria. Cultivation of the crop is chiefly undertaken by the Koreans. A high rainfall during the growing season is essential for its development.

Rice culture is one of the most effective means of conserving soils and, since the fields are flooded during most of the growing season, rich cultivation has an important effect in checking floods. Large-scale irrigation works for supplying uncultivated sloping hills with water will help control the stream flow, and make productive tracts of land which formerly lay waste.

Rice paddy soils are often used for producing green manure during winter months. A kind of clover which enjoys a moist habitat is planted in the paddy fields in the autumn and is cut and tramped into the soil in the early spring before the rice is planted. It is an excellent source of nitrogen, the application of which considerably increases crop yields.

Wheat Wheat crop is produced in territories having rather high temperature, but relatively low rainfall in the winter. South of the Great Wall, wheat is exclusively a fall-sown crop. In Manchuria and Inner Mongolia, on account of the severe cold in winter, wheat is spring-sown.

The soil requirements for wheat are: fertility, adequate water-holding capacities, and fair drainage. Farmers used to pile the soil into low-ridges so as to keep wheat root above water level. Fertilization also plays an important part in the production of high yields. Extremely sandy soil is not adapted to wheat production. Since wheat is grown primarily in subhumid and even in semiarid sections, the soils are calcareous. The chernozem and chestnut soils are very important in wheat production.

In the Yellow River basin wheat occupies more than 30 per cent of the crop acreage. In Manchuria, wheat, occupying about 10 per cent of the crop area, is the fourth-ranking crop, next to soy bean, kaoliang and millet. From the Hwai River southward to the Yangtze, and in the lower Yangtze southward to the Tai Lake, rice and wheat co-exists, the wheat occupying the land during the winter and spring, and rice crops during the summer months. South of the Yangtze two crops of rice tend to reduce the area of land available for wheats. Excessive rainfall in October is the frequent cause of seed decay. Wheat and barley are raised as far south as Indo-China border.

Kaoliang (sorghum) The outstanding feature of kaoliang is its ability to grow under dry conditions, and to withstand high temperatures. Excessive rain at harvest is detrimental to its quality. It

is well adapted to the soils of loessial origin, calcareous alluvium, and on the Shantung brown soils.

Kaoliang is always grown as a summer crop. On North China plain it is the chief spring-planted crop, occupying those fields left fallow during the winter. Since it requires a relatively long growing season, it is not quite well adapted to later planting in those fields from which winter wheat is harvested.

Kaoliang is primarily a crop of North China. It is the indispensable crop in southern Manchuria and the adjacent Jehol, where it occupies more than 30 per cent of the crop acreage. Before the emergence of soy beans as the important crop in Manchuria, kaoliang was planted on nearly one-half of the cultivated land and there was a large export surplus.

Somewhat similar to sugar cane, kaoliang shoots to a height of 10 to 12 feet,—tall enough to hide a man on horseback. They are very useful; they furnish food and fuel and distilled drink, and the stalks, daubed over with clay, provide good building material. Pulp manufactured from the stalks of kaoliang is now regarded as a promising industry for the future.

Millet Millet is grown in practically the same area as kaoliang, the former being raised usually on poorer soil. As millet requires comparatively short time to ripen—from sowing to maturity, only sixty to ninety days—it can be planted in spring or later, in June, in fields where winter wheat has been growing. Water is an essential factor in a full growth of millet. The young plant demands a fair amount of moisture, but once it has grown it is more or less drought-resistant.

Like kaoliang, too, millet is the crop of North China. Just as rice is the principal cereal of South China, so are kaoliang, millet and wheat the staple food cereals of North China. Some of the millet produced in Manchuria is now exported to Korea to be consumed as food by the Koreans; and in return for this, a large amount of rice is exported to Japan from Korea.

Corn Corn requires frequency of summer rainfall as well as a high degree of moisture. In order to obtain a plentiful crop, a growing season of 140 or more days alternating with fairly warm nights, and with a mean summer temperature of 75 degrees, or thereabouts, is needed. Corn is grown on a great variety of soils. Adequate drainage is essential; insufficient drainage or severe coldness in spring is detrimental to the full growth of the crop.

Corn, first introduced into China in the sixteenth century, is raised in all the provinces. It is not, however, highly esteemed as food; only the poor who cannot afford rice or wheat live on corn. Crops introduced from the New World—corn and potato which, unlike those of native stock, can grow on high plains are planted in great abundance on elevated plateaus and mountain slopes in North China.

The distribution of corn in China is a matter of wide interest. Stretching as a broad belt, the region of concentration extends from southern Manchuria southwestward across the North

China plain and Shantung to interior hill lands of South China. In Manchuria corn is grown under rather severe conditions in regard to temperature and moisture,—it is raised in fertile areas, while kaoliang and millet are raised in less favourable areas.

The growth of corn is confined to the eastern provinces of the Yellow River basin—regions marked by a high degree of humidity in summer months. In the great plain of this region corn is among the most important summer crop in fields from which winter wheat has been harvested in May or early June.

In hilly interior South China corn is an important food crop for the poorer mountain people, who raise it, alongside with millet and barley, on unirrigated slopes. Corn grows best on relatively fertile earth—soil commonly found on steep hill-sides of humid regions where, as a result of not having been long exposed to weathering, it is not leached of its plants foods.

(2) Other food crops

Barley Barley is chiefly grown in the northern and central provinces. A combination of high temperature and high humidity is as fatal to barley as it is to wheat. Like wheat, it is spring-sown on the interior lands of high altitude in Manchuria. In south of the Great Wall it is a winter crop. Barley, which is distinguished from other cereal crops by its ability to mature in a shorter season, is a staple food in the high lands of Tibet. Manchuria produces plenty of barley and hops, which fact accounts for the practice of beer brewing that is prevalent there.

Oats Oats are less winter-hardy than barley. Requiring a longer growing season, they are not distributed extensively to the North as the barley is; nor are they raised on elevated lands. Sown in spring, it is one of the principal crops in Inner Mongolia. Under favourable conditions oats can yield abundant crop on alkali and saline soil—soil that would choke the growth of wheat and barley. Oats are relatively high in fat, protein and mineral matters—constituents that build up bodily strength. They are also used as a desirable feed for breeding stock and young animals.

Buckwheat Buckwheat, which grows best under comparatively low temperatures, and which produces a crop in 10 to 12 weeks, is ideal for sowing on lands of high altitudes. It also fits well into a cropping programme to replace a crop that may have been destroyed earlier in the season. As it thrives in spite of poor soil conditions, it is ideally adapted to infertile, acid, poorly tilled lands. The loess plateau of Kansu with its rough topography is among the producing regions of buckwheat.

Soy beans Soy beans are warm-season annuals. The optimal seasonal temperature for beans is about the same as that of corn. They can grow under such adverse condition as droughts, frosts, and excessive moisture. Hence, in respect of easy growth,

soy beans are preferable to corn,—a fact which is proved by the plentiful crops of soy beans everywhere in Manchuria, even on apparently sandy and barren soil where rich harvests are least to be expected. As results turn out, soil fertility exercises as a limiting factor to a lesser degree in bean production than in the majority of field crops.

China is the world's greatest producer of soy beans. Products derived from this crop (bean, cake and oil) constitute the most important export. Cultivation of soy beans had long been practised by the Chinese. But large scale raising of the crop did not start until thirty or forty years ago, and since then the project has proved most fruitful of results. Though grown widely throughout China, soy beans are planted in regions of specialization—Manchuria and east-central China from Shantung southward to the Yangtze Delta.

In Manchuria soy beans are the most important crop,—the highest ratio of soy bean acreage to total crop acreage (more than 30 per cent) is found in Northern Manchuria. The use of the crop is threefold: food for animal and man; oil, large quantities of which are sent overseas; and fertilizer, Japan and China Proper purchasing bean cake in tremendous quantities.

The growing of beans was unheard of in Western countries. Gradually during the last decade, however, soy beans were raised, at least in the United States, where they proved a profitable crop in the corn belts and were soon cultivated on an extensive scale. It has been shown that soy beans are far more productive of edible oil than cotton seed oil, while the meal, as a superior protein ingredient for livestock and poultry food, has become of great utility. What is more important, soy flour in various forms is gaining in popularity in bakery and other food products. Soy beans contain on the average, 40 per cent of protein and 18 per cent of oil, with upper limits of 50 per cent and 24 per cent respectively. The demand for the flour and oil is practically unlimited.

Peas Peas thrive best in cool, relatively humid climates. When grown in Southern China, they must be planted early so as to be benefited by the cooler months. In contrast to soy beans, peas can withstand relatively low temperatures, especially during the seedling stage. In making vermicelli and macaroni, which are peasant industries, wheat flour, rice paste, and green beans are used for the better grades, and sweet potatoes, or kaoliang, with a small admixture of beans for the inferior qualities.

Peanuts Peanuts is strictly a warm-season crop, and needs a moderate amount of moisture throughout the growing season. Most of the crop is produced in areas with more than 30 inches of annual precipitation. Peanuts of the best quality which contain a high percentage of oil are produced on the brown soil of Shantung. The

plant is not indigenous to China; it was introduced, so people think, during the early part of the reign of Emperor K'ang Hsi (1661-1722). It is now cultivated very extensively in various parts of the country, particularly in the Yangtze Valley.

Peanut, or groundnut, is, properly speaking, a pea rather than a nut. Although cultivated chiefly as an oil-seed, it is also used as food for man. Peanut butter is another valuable and nutritious product.

White Potatoes The main climate requirement of a good potato (white or Irish potato) producing area is a cool growing season. The highest yields are obtained under conditions of cool and humid climate. While their distribution is determined to a far greater extent by climatic rather than by soil conditions, fine loam soils are most desirable. The soil must have chemical fertility; otherwise artificial aids are necessary to supplement deficiencies due to nature.

White potato is an American contribution to the world's agriculture. It was imported to China about 1600 A.D. from Manila. In a gazetteer of Hun-yuan, Northern Shansi, there is an account of extensive planting of white potato for feeding the people during the famines of 1787, 1832 and 1836. In the lands along the Great Wall in North China, the potato is an important item in the diet. The conversion of potato into alcohol during wartime has led to cultivation of the plant over large mountainous tracts in Southwest China.

Sweet potatoes Normally the plant needs a growing season of at least four months. But in addition to this, warm days and nights for a considerable portion of the time are necessary for ensuring a satisfactory crop of sweet potato. For this reason most of the crop is produced in the terraced hill sides South of the Yangtze and on the islands along the coast.

The soil requirements of the plant are not strict,—even sandy soil is acceptable. Whatever the soil type, it should be warm, friable, and well drained. The crop is especially well adapted to newly-cleared lands. It can also be grown on land too poor for a successful production of cotton or tobacco.

Yams The edible species of yams produce starchy tubers, which in respect of food value and taste, are equal to white potato. The fact that it requires eight months for the development of a good crop limits it to the Southern portion of China. Yam furnishes a considerable part of the food supply of the people of Hainan Island.

(3) Economic crops

Vegetable oils Of the vegetable-oil-producing plants, the different species are too many to allow a detailed enumeration here. They are generally presented in two groups, namely, those coming from trees and those from annual plants. Or they may be classified in respect of the regions in

which they originally grew, namely in the tropics (palm-oil), subtropics (olive-oil) or the temperate zone. Furthermore, certain plants, such as sesamum, are grown primarily for the sake of the oil which can be extracted from them. In others, such as cotton, the oil is a by-product.

The chief vegetable oils in China are bean oil, peanut oil, sesamum-seed oil, rape-seed oil, and tung oil. For cooking purposes the Chinese prefer peanut oil to bean oil, as the former has a more delicate flavour. Peanut oil frequently appears in European commerce under the name of "salad oil." Sesamum-seed oil is obtained from the seed of the herb extensively grown in Honan Province and exported from Hankow. The oil has a very agreeable odour; hence the Chinese name "hsiang-yu", meaning fragrant oil. It is used in Europe as a substitute for olive oil. In the warmer Yangtze Valley, large quantities of yellow rape are sown in winter harvest in April, before the planting of rice and cotton. Rape-seed oil, commonly used for cooking purposes, is also suitable for use as a lubricating oil. Most of the wood-oil in China is made from the tung tree.

The uses of vegetable oils are manifold. Some are largely used as table oils, for cooking and preserving, and substitutes for butter; others including rape-seed and cotton-seed, are used for lighting; others are used in medicine and perfumery; others in making candles; still others, known as drying oils, of which tung tree oil is the most important, are used in paint and varnish industry. In wartime China, vegetable oils were used as substitutes for alcohol. Technological advances in refining and purifying the vegetable oils have played an important part in making rape-seed oil nearly as efficient as Diesel oil. The residue left after the extraction of various kinds of vegetable oils are commonly used as food for cattle and as fertilizers.

Sugar cane Sugar cane is a tropical and subtropical plant. In China the crop grown in regions as far North as Szechuan, that is, on the climatic margin of the cane sugar zone. In the tropics the plant is a perennial, producing more than one crop from one planting of seed cane. In subtropical areas usually only one sugar crop is harvested from a planting.

Sugar cane requires a mean annual temperature of at least 16° to 18°C (16° to 64° F), and especially a very high summer temperature; when the winter is severe, too early cold periods cause great losses. It also demands heavy rainfall, at least 40 inches annually; much water is necessary during the early period of growth, much water and heat during the middle period, much heat without too much rain at the time of harvest.

Soils good for canes require the ability to retain moisture, they are deep and friable, and need good drainage. Cane is grown under conditions similar to those required by rice, but different from those required by tea. It may be noted in passing that in many cases cultivation of sugar has replaced that of rice.

The amount of sugar that China produces annually is insufficient to meet the daily need of the people. The actual output is not as great as it could be. Unprogressive methods employed in the production of the plant greatly reduce the output. The rapid growth of sugar industry in Taiwan is due to Japan's efforts of producing sugar for home consumption.

Molasses consists of the dark, impure, viscid liquid which is obtained as a residue or by-product after the crystals of sugar are extracted. In wartime China, it is chiefly used for distilling alcohol, an important industry in Szechuan Province.

Sugar beet In China, sugar is obtained from sugar cane or from sugar beet which are produced under widely different conditions, the former in Southern China and the latter in Northern China. Sugar beet requires a much cooler temperature, with the mean temperature during the summer months not far from 70° F. A uniform availability of moisture, supplied by either natural precipitation or irrigation, is prerequisite to maximum yields and high quality. The soil must be deep, friable and well drained. Field observations indicate that a cool climate with long summer days is a more important factor in beet growth than is the soil.

Like potato, sugar beet is essentially a European crop. The quality of the crop has been improved during the past centuries. First transplanted to the Chinese soil some thirty years ago, it is now extensively cultivated in the Manchurian plain, and huge quantities of it are manufactured in refining factories. Harbin, in Kirin and Tsinan, in Shantung, are centers of beet-sugar industry.

Tobacco Growth of tobacco is possible under wide range of climatic conditions and of soil acidity. As the plant has a rather limited root system, it is easily damaged by drought. Dry seasons tend not only to reduce the size of the plants, but also to produce abnormally thick leaves having poor combustibility. A constant supply of water during the growing season is therefore, a prime necessity. While the crop is grown in humid areas, good soil drainage is essential.

Tobacco is a native plant of America. It was introduced into China in the beginning of the seventeenth century. The plant is now cultivated in most parts of the country. The majority of it is consumed at home. In the rice-belt it is a spring crop, in the colder regions it is grown in summer. Tobacco of superior grade, known as "water tobacco", is made in the fertile valley of the Yellow River at Lanchow, in Kansu.

Safflower. The plant is said to have been introduced to China from Central Asia in the second century B.C. The flowers, which contain a valuable red colouring, have been grown and used as a kind of red dye. Since the young plants are frost-resisting, the crop can be grown in Northern areas. Liangchow (Wuwei) in the Kansu Corridor is renowned for safflower in medieval

time. Safflower of the best quality comes from Szechuan and is used as a dye for silk and satin.

Indigo Indigo is an important blue dye repeatedly referred to in earliest Chinese literature. A great many indigo-yielding plants are grown in China, chiefly in central and Southern provinces, but those of the best quality are from the Yangtze region. Although China is a great indigo-producing country, enormous quantities of artificial indigo are imported.

(4) Fibre crops

Cotton The cotton plant is not particular in soil requirement, but it needs a long growing season with frequent rains. The ideal distribution of rainfall for cotton is of the thunder-shower type with several days of bright, warm weather between rains. While the cotton plant needs much rain during the growth, it is injured by rain in the last period of its maturing. A dry autumn for harvest would be an ideal climate for cotton.

The distribution of cotton in China is a problem of some interest, especially when viewed in connection with the distribution in the United States. Most of the cotton in China is raised North of the Yangtze Valley on soils which are largely calcareous and more or less porous. If one draws a line from Ningpo in Northern Chekiang to Tienshui in South-Eastern Kansu, and from there Northeastward to Peiping and Tientsin, the triangular area thus outlined will include the most important cottonraising regions of China. Cotton is sometimes rotated with winter crops such as wheat, broadbeans, barley and the purple-flowered alfalfa. The last crop is used both as a vegetable and, more widely, as green manure. This plant is widely grown throughout the Yangtze Basin.

The Northern limit of cotton production is set at South Manchuria. Recent experiments in that locality with the American variety of cotton have turned out well. West of Lanchow, the oases belt is favorable to the cultivation of cotton if adequate irrigation facilities are provided. Except for small amounts in the dry Western provinces, Chinese cotton is unirrigated.

Cotton occupies roughly 5 per cent of the country's crop acreage. At the present time China ranks third (after the United States and India) in cotton production. The Yellow River and the Yangtze basins each accounts for half of the production. Of the quality of Chinese cotton the British Cotton Mission to the Far East in 1931 wrote that it possesses many desirable characteristics, that though the staple is mostly very short, the fibre is strong, and beautifully white. The tensile strength is good. The Mission concluded that with only a slight improvement in length Chinese cotton would be readily saleable in Lancashire.

China's production of cotton in 1936 reached 3,700,000 bales of 500 pounds each, and constitutes over 10 per cent of the world production. It provides about three-quarters of her own requirement, the remainder being imported of higher grades from India and America. To make up for such imports, considerable Chinese raw cotton is exported, chiefly to Japan. It is quite possible that in the future, Chinese cotton, improved in quality and increased in quantity, will eventually end importation from other regions.

The "tree cotton", or Kopok, of South China is the seed hair of a large tree 30 to 40 feet high, with red flowers. It differs from the ordinary cotton in having straight and smooth fibres. It is six times lighter than cotton. But owing to the absence of twist, such fibres cannot be successfully spun into yarn. They are, on account of their elastic, springy nature, chiefly used for stuffing pillows, cushions, and life-saving equipment. Much progress has been made in the production of tree cotton in Yunnan Province during wartime.

Ramie Ramie, or China grass, is a perennial-rooted plant with slender stalks reaching a height of three to six feet. Essentially a plant which requires warmth, it is produced mainly in areas around Hankow in the Yangtze Valley. It is usually grown in red soils, with three crops each year—the first, in June, the second, in November; and the third in February: of these the June crop is the best in quality.

The fibre is obtained from the bast. It is the strongest fibre known, being three times as sturdy as hemp. It is extremely durable, and is less affected by moisture than any other fibre, but is somewhat lacking in elasticity. It has a brilliant silky lustre, can be dyed readily, and is exceptionally long. The qualities would make ramie highly desirable for textile purposes were it not for the difficulties encountered during the extraction and cleaning of the fibres.

The term grass cloth is used to describe a fabric made in China from the fibres of different plants, chiefly from ramie, hemp, pineapple fibre, or from a mixture of any or all of these fibres. On account of its coolness, whiteness, and wearing qualities, grass cloth is the material extensively used for making summer clothing; it is also used for making embroidery work.

Hemp The plant can withstand extremes of temperature, but requires a hot growing season and adequate moisture. It grows best on undulating or rolling land. Calcareous soils are particularly well adapted to its production.

Hemp is an old crop that has long been grown in China. It is principally cultivated in the most northerly provinces that are unsuited to the production of cotton. The fibre which yields from the bast is similar to that of flax, but only coarser and stronger. A great deal of hand labour is demanded for its harvesting.

The fibre is used for ropes, twine, carpets, sailcloth, cordage and sacks. In addition to these hemp has important by-products; hemp-seed is used for producing oil which has a very low freezing-point and is of value for lighting. The ashes of the stalks are mixed with powder and used for the production of fireworks.

Flax The crop demands moist, cool weather during the early part of the growing season from March to June, followed by warm and relatively dry weather during the early portion of the summer. There are two kinds of flax: fibre flax, from which linen and other spun products are made; and seed flax, which supplies linseed oil, for the same purpose as sesame seed oil. The Chinese grow the plant chiefly for its seeds and use the oil for cooking, except in Suiyuan Province where it is grown primarily for the production of fibre.

Pineapple hemp Pineapple hemp, or pineapple fibre, is obtained from the leaves of the pineapple plant, a perennial which, growing from 2 to 3 feet in height, is cultivated chiefly in Kwangtung Province. When the plant is reared for the sake of the fibre, the fruit is not allowed to ripen but is plucked before it arrives at maturity, as, by so doing, the leaves and fibres develop most perfectly. In Swatow pineapple fibre is used, either alone or mixed with other fibres, in making grass cloth of fine grades.

(5) Silk and Tea

Silk Although silk comes from the insect, the industry is essentially based on the culture of mulberry, which grows well in all the warmer districts of China, but especially in the lower Yangtze Valley, the Canton Delta and the Szechuan Basin. The leaves of young trees not exceeding three to four years of age are best suited for this purpose. In the lower Yangtze Valley, two crops are produced; the Canton Delta produces six crops.

The domestication of the silkworm requires a large number of active hands. This is very absorbing work, and since it is confined to a period of only a few weeks, it must be performed by persons who are very careful and attentive. Women are particularly apt at silk culture.

Unlike the manufacture of cotton, which until recent years has been developed far from the cotton-producing centers, the silk industry arose within the regions of silk worm production, or at any rate very near them. The finest white silk in the world comes from districts around the Tai Lake, while Hangchow, Soochow and Nanking are the chief silk-manufacturing cities.

Chinese raw silk may be roughly divided into two classes "home silk" and "wide silk." The latter is obtained chiefly from North China, the principal districts engaged in its production being the Shantung and Liaotung Peninsulas and the Funiu Shan in Honan Province. The oaks on which the wild silkworms are fed grow well alike on rocky hillsides and in rich loam. Two crops are gathered, the spring and the autumn, of which the latter produces

the most silk. The raw silk exported from the north is of a brownish colour, and coarser than that produced in the Tai Lake region. Usually regarded as a luxury, silk has many industrial uses. Important military uses are for making parachutes.

Tea The climate best adapted for tea is that which is warm, moist, and equable throughout the year. The presence of iron in the soil is believed to be always desirable, and hence red soils are preferred to others. There must be good surface drainage. All these conditions make the Chinese "tea gardens" well distributed on the slopes of hilly country south of the Tsinling Range. Although in a great many places both tea and rice are grown, there is marked difference in regard to their habitat. Rice flourishes best in the valley bottoms, tea on the drier hillsides.

Tea plant seldom exceeds 3 feet in height. The leaves are dull dark green in colour. In China about four crops are obtained each year: the first in April, the second in May, the third in July, and fourth in August and September, each successive crop being less fragrant and less valuable than the previous one. Green tea and black tea come from the same plant, the difference in colour being produced by different processes in the manufacture. Brick tea, made by pressing damp leaves into a brick-like mould, finds its chief market in Tibet and Central Asia.

The seeds of the ordinary tea plant yield up to about 30 per cent of oil which somewhat resembles olive oil in general properties. The so-called "tea oil" of Chinese commerce, however, is not the product of the tea plant, but of another shrub, a relative of the true tea plant, which grows wild or is cultivated on hillsides. Tea oil is produced chiefly in the Nanling region.

(6) Fruits and Vegetables

The fruits in China may be classified into two types: southern and northern. In the subtropical south, particularly in the coastal lands of Fukien and Kwangtung, oranges, pomeles, lichees, olives, bananas and pineapples are cultivated. In drier regions of the North, the Shantung Peninsula and the Yenshan region in northern Hopei are famous for its fruits and nuts most of which are raised on brown soil. Applies, pears, apricots, peaches, plums, red haws, persimmons, jujubes, crab-apples, grapes and various other fruits, and walnuts and chestnuts are of considerable importance within the districts where they are raised. They are usually found growing in little terraces on the hillsides, but orchards are also seen on level ground.

Peach, the origin of which for some good reason has been claimed for China in preference to Persia, has probably a wider cultivation than most of the other fruits; its centre of dispersion is in Shantung. The best pear is produced in the neighbourhood of Tientsin, which keeps well and can be got all through

the winter. A white grape grown near Hsuan-hua, in Chahar is most expensive of all Chinese grapes, and is only to be had in limited quantities.

Jujubes, commonly called Chinese dates, prefer the loess, a light rainfall and a dry cold winter. Different varieties are eaten fresh, dried, or preserved in sugar. Persimmons, or Chinese figs, somewhat resemble a very large ripe tomato in appearance. They are very refreshing and possess various medicinal properties. Walnut tree is grown chiefly north of the Yangtze. The Chinese use the nuts as a dessert fruit and as a source of oil which is almost equal to linseed oil as a drier and used by artists for painting the glass.

Lichees, and their near relative longnans are considered to be very beneficial to the health.

Especially characteristic of south China are the many varieties of oranges, from which country the sweet orange has been first introduced into the United States of America. It is said that over eighty different species of edible oranges have been grown on the southeastern coasts and islands of China. While citrus growing in California and Florida developed into a modern industry, China let it fall more and more behind, just as she did with other cultures like tea and silk, which the world once inherited from her. Improved methods of storage, packaging, transportation, and marketing must be adopted, if fruit industry in China is to flourish.

The Chinese are among the most skillful gardeners in the world. Vegetable culture is in high state of perfection. Peas and beans, cabbage and spinach, onions and turnips, and a host of other vegetables play a very important role in diet. Three or four crops a year are by no means uncommon phenomena. As a device for saving space, cucumbers and other running vines are made to climb up poles. The trade, however, has not extended beyond local districts, owing to expensive transportation costs incurred.

(7) Agriculture and Industrialization

The agricultural development of China is of supreme importance to the growth of modern industrialism. Chinese agriculture, too, to some extent, must be industrialized. A due balance between agriculture and other industries should not be neglected. The effect of industrialization on the peasantry is beneficial in so far as it renders intensive farming possible. Facilities of cheap labour, new agricultural machinery and scientific experimentation will make ample contributions to providing the means. Prosperous farm conditions bring about enlarged and stable market for industrial products, with attendant gains for the whole industrial commodity, in the same way that accelerated industrial productivity is necessary for enlarged markets and profitable prices for agricultural commodities.

FOREST RESOURCES

(1) Forest regions

The forested land of China constitutes about 8 per cent of the total area. Though this figure is small as compared with the United States (35%) and Great Britain (57%), the land suited for reforestation is estimated at 32 per cent or more. The greater part of the forested area is contained in the five naturally wooded sections: Northeast (Manchuria), the Tsinling Range, the Nanling Range, Hainan Island, and Southwest, including the borderlands of Sikang and Yunnan provinces.

Manchurian forests. In Manchuria, forests cover about 37 per cent of the land, a figure which is greater than that of Korea or Japan. Like the forests of the corresponding climatic region in North America, conifers and the deciduous trees are mixed. Conifers include spruce, silver fir, red pine, white pine, and larch. The deciduous tree include birches, poplars, oaks, and others. Much of the forest land is still unsurveyed. Particularly in the region of the Great Khingan Mountains investigations are lacking. The Yalu River Valley in Eastern Manchuria is the most important source of commercial timber at present; many saw mills are situated in Antung, near the mouth of the river.

Tsinling forests. The Tsinling Range lies south of the loess area and divides the Wei and Han Rivers in southern Shensi. It reaches up to 12,000 feet in places, high enough to have subalpine rhododendron thickets above a zone of firs, pines, birches, and willows. Somewhat lower down, especially on the southern side of the range, occur forests of deciduous trees, as in Manchuria, but species prevalent in this area, such as ash and bamboc are less able to withstand the severe winters. South of the upper part of the Han River, forming the northern and eastern border of Szechuan, lies the Ta Pa Shan. From both the Tsinling and the Ta Pa ranges much timber and many other products, such as lacquer, edible fungi and medicinal plants, are exported to adjacent populated areas.

Nanling forests. The Nanling Range is a broad, irregular hilly land separating the Yangtze Valley from the West River Valley and the southeast coast regions. Thickly clustered on its inaccessible parts are forests, primarily of the oak-chestnut formation. Characteristic of the lower woody plants are members of the laurel family. Along with those species are bamboo, tea, and tung trees which are the key economic tree crops. Conifers are not abundant, but the South China fir thrives here and is the most promising tree for reforestation. This fir is very easily grown, because it sprouts readily from the cut stumps and may be grown from cuttings.

Hainan forests. Hainan Island is tropical in character. In the heart of the mountain ranges, which are to this day inhabited by primitive tribes, there are still luxuriant tropical jungle which vary in character at different altitudes.

On the higher parts are oak-chestnut forests with broadleaves evergreen forests below. Palms fringe the coastal lands. Rubber and coffee are introduced from foreign tropical lands and may be considered as climatic indicators.

On account of high altitude (over 12,000 feet) the forest flora of Taiwan Island is closer to that of the Mid-Mekong Region in Yunnan than it is to that of southeastern China.

Southwest forests. The borderlands of Yunnan and Sikang provinces are typical of the forest flora of Southwest China, where three altitude zones are recognizable—pine, spruce and larch-fir. In general, below 10,000 feet, Yunnan pine is the dominant species, while the Chinese white pine is of less importance; between 10,000 to 12,000 feet, the Likiang spruce predominates and prickly oak also reaches its best growth; from 12,000 feet up to timber line (about 15,000 feet), pure stands of George fir and Chinese larch are found. Here occur vast forests, mostly as yet unexploited, a future storehouse untouched by the axe until railroads and roads open it up.

(2) Timber trees

Firs. Most of the timber is obtained from firs and pines as an item of commodity. Fir, found in all southern provinces, is about the fastest growing coniferous tree in China. Generally they are cut for sale as commodities when they are twenty to thirty years old, and about fifty feet high. The wood is light, soft, fragrant, and fairly tough. It is used for house and boat building and for a great variety of other purposes.

Pine. *Cunninghamia sinensis*, known as sha-mu, is the pine most commonly found in China, although numerous other varieties are also found throughout the country. This particular tree yields a timber which, varying in colour from white to red, is much used for poles, planks, flooring, house-building, furniture, and also as a source of charcoal. Pine seeds, or pine-nuts, contain a rich, aromatic, mealy kernel; the Chinese consider them to be very nutritious, and use them as an article of food and also in medicine.

Oak. About twenty species of oak have been discovered and listed in China. Oak wood is hard, remarkably strong and durable, highly valued for general building, and for the making of crossties, furniture and agricultural implements. Wild silkworms are reared on the leaves of oaks, as has been mentioned above.

Walnuts. In China walnuts are grown extensively in the northern provinces, but rarely south of the Yangtze. The wood of this tree is firm, close-grained, and beautiful; it takes a fine polish and does not easily split. The walnut tree is cultivated both for its fruits and for the wood, which is used chiefly for cabinet-making and for gun-stocks.

Laurel. The members of this group in middle China are so prominent that the vegetation of central China is sometimes referred to as being of the "laurel type." *Nannu*, a species of laurel family, are evergreen and very

beautiful trees. The wood is close-grained, fragrant and very durable. It is highly esteemed for furniture-making, for pillars in the temples and the houses of wealthy people.

Camphor tree. The habitat of the tree is the Nanling Range, especially in Fukien; it is also found scattered in Szechuan. The wood is valued for making trunks and high-class furniture, as the oil exuded from the wood has an insect-repelling odor. But it is especially valued for the camphor, which is largely used in medicine. The centre of camphor production is in Taiwan.

In the alluvial plains in North China, willows and poplars are the familiar trees which are extensively planted for furnishing fuel and posts. Elm, beech, maple are among other important timber-trees of the temperate zone.

(3) Tung oil and lacquer

Tung oil tree. Tung oil, also called commercially "Chinese wood oil," is obtained from seeds of the tung trees. They are a handsome, very hardy, and fast-growing tree, about twenty feet in height. In the middle of September each year, the apple-like fruits are collected from a fully matured tree. The seed, when it is dried, contains 36 per cent oil. This oil is a thick, semi-solid substance, varying from pale yellow to dark brown in colour. It is the best drying and waterproofing oil of vegetable origin known to technical science.

As the tung trees are subtropical, and cannot withstand prolonged periods of cold, their cultivation is limited to southern China. They thrive on very poor soil, provided there is plenty of rain. An annual rainfall of thirty inches is the minimum amount required for a normal growth of the trees; and an abundant rainfall—over forty inches in a year—will aid an exuberant growth. The tung trees are a very good complement to the minute system of agriculture in China, as they grow well on hillsides and in mountainous areas.

Of the four principal tung oil producing provinces, Szechuan produces nearly one-third; Hunan, nearly one-fourth; Hupeh, 12 per cent; and Kwangsi 11 per cent. Hankow is the chief exporting centre.

New uses for tung oil have been discovered in China during the war with Japan. In view of the difficulties of obtaining fuel oils abroad, China had to resort to substitutes. Chinese chemists discovered the use of tung oil as substitute for gasoline and kerosene.

Varnish tree. Natural varnish, known in China as Ch'i, is obtained as an exudation from the trunk of the varnish tree, which is cultivated in Central and Southern China. While the tung oil trees occur on both low and high hills, the varnish trees are grown more extensively on higher and rougher lands than on low hills. This varnish furnishes only one colour, viz, black, and is considered the most indestructible varnish known. The class of varnish known as "Ningpo varnish" is a very superior kind, and is widely used for floors, doors, windows, etc.

(4) Other Tree Products

Tallow tree. Chinese vegetable tallow is obtained from the fruits of the tallow tree. The white-barked tree, called "wu-chiu" in Chinese, is a native plant of Central and Eastern China usually planted in the dikes between fields. It is remarkable for the brilliant red colour of its foliage in the fall. Vegetable tallow appears as a hard, firm, opaque, solid mass, which, when pure, is almost perfectly white. In China it is used for making candles; when exported they are employed principally in the manufacture of soap. Great quantities of it are exported from the Yangtze ports, chiefly from Hankow.

Wax tree. Chinese white wax, or insect wax, is produced by a small winged insect on the twigs and branches of the wax tree. The tree is evergreen, cultivated chiefly in the central and western provinces of China. White wax, a translucent, hard, brittle, snow-white mass, is used in mixture with vegetable tallow in making candles.

Cassia tree. Chinese cinnamon consists of the bark of the cassia tree, which grows in abundance in Kwangsi Province. The best quality is obtained in the district of Kweichow. Like tung oil tree, it is one of the oldest of the spices—valued particularly because of its pleasant aromatic flavour which is due to the presence of an essential oil. It is used as a tonic or stimulant in Chinese medicine.

Aniseed star. Aniseed star is the fruit of a small tree which somewhat resembles a laurel. The best aniseed star is produced on the borders of Indochina and in Kwangsi Province, large quantities being produced near Lungchow. Originally the trees grew wild on hillsides, but they are now carefully cultivated. Aniseed star oil is pale yellowish in colour and has a characteristic odour. It is used for flavouring purposes; in making perfumes and soaps; in medicine; and as a spice in brewing certain kinds of beer.

Nut galls. Nut galls are produced by a certain species of insects on fu-yang trees, which find their optimum habitat in Kweichow province. They furnish the finest tannin. Exported to the United States, they are manufactured into gallic acid and pyro gallic acid, which are used as dyes for developing movie pictures and other films, and also as medicine.

Fungus. Various kinds of fungus appear in Chinese commerce. The common black fungus, known in Chinese as mu-erh (meaning "wood ears"), occurs as natural growth on diseased or decaying oak trees, chiefly in the central provinces of China, particularly in the mountainous districts bordering on the Han Valley. A long period of rain is favorable to the development of the fungus. As an item if food it is esteemed as a table delicacy in Chinese culinary art, agreeably pungent in flavor and having medicinal properties.

(5) Palms and other tropical products

Palms. Coconut is the fruit of the coconut palm, which grows very widely on Hainan Island and tropical coasts—seldom in regions far from the sea. The milk of the nut is intoxicating when mellowed and is considered by the Chinese to be very nutritious. The kernel is used as food. When dried it is called copra, a name derived from the oil it contains. Coconut oil is used for cooking purposes, as an illuminant, in painting and soap-manufacturing. The outer fibrous covering of the coconut is used in making coir yarn.

The palm-leaf fans so common in China are made from the large leaves of the coir palm, which is known in Chinese as tsung-lu. Nearly all the fans exported from Canton and Hongkong are produced in the Hsin-hui district (Kongmoon), on the Canton delta. A section of this district is almost wholly given to the industry, and several thousand acres are covered with the palms, mostly on low-lying ground.

The coir palm is a hardy plant, able to weather the frosty winters of the Yangtze Valley. The large brown bracts, which protect the stem from the cold, are natural pieces of fibre cloth, resembling cocoa-nut fibre, but superior in quality. The fibre is woven into mats and rain-coat, which is an indispensable wear for farmer-laborers in the fields.

Betelnut. The betelnut, commonly known in Chinese as pin-lang, a term which is probably a corruption of the Malayan term "pinang," is the fruit of the betel palm, a tall, slender tree indigenous to the East Indies, and also grown in Hainan Island. The entire fruit consists of the nut itself enclosed in a tough fibrous covering known as "betelnut husk." The habit of chewing the betelnut is common in some parts of South China. They are usually chewed immediately after the meal, and are said to stimulate digestion, and also used as a prophylactic against malaria. Betelnut husk is extensively used in medicine, and it is considered to be refreshing and invigorating.

Rubber. In Hainan Island, a promising rubber-producing region in China, the industry remains undeveloped. The Hevea, the tree that produces rubber, requires deep, friable, and well-drained soil and a heavy, well-distributed rainfall (about 100 inches per annum) and a temperature of 70°-90° F.

(6) Bamboo

Bamboo consists of the hollow stems of a gigantic grass, cultivated in groves throughout China south of the Tsinling up to about 3,000 feet. It grows best in damp places, sometimes attaining a foot in diameter and 100 feet in height. The Chinese generic name for bamboo is "chu," and no doubt many genera and several dozens species are called by that name.

Hillsides in South China are covered with miles of bamboo thickets. Piercing through their thin green leaves, the sunlight falls with a greenish tint. The plume-like stem outlines itself.

against the background, uplifted and darting to a giddy, perilous height of fifty feet, and, as if in haughty disdain, standing unpropped for some thirty feet, with no branch, but only joint green tubes: surely a spectacle for the poet, the painter to gaze upon.

Bamboo is used for a great many purposes—for chopsticks, hats, mats, baskets, masts, screens, umbrellas, carrying-poles, furniture, fencing, building, bridges, aqueducts, rafts, musical instruments, and for countless other purposes. A valuable feature is its great tensile strength in proportion to its weight. Bamboo pulp is much used as a raw material in the manufacture of paper. Bamboo sprouts or shoots constitute an important article of food, and the young tender places in the early spring are as crisp and delicious as asparagus.

Bamboo is one of the most effective plants for solidifying the soil. It produces matted fibrous roots which, when well established, almost completely stop erosion. In Central and South China, bamboo could be most effectively used in strip forestry, in alternation with pines and fir strips.

(7) Forest Management

It is generally felt that the forests of China are in urgent need of systematic management. The conservation of natural resources—water, soil, wild life, etc.,—and the creation of reservations to protect forests from damage are vital tasks. In some areas reforestation is an imperative necessity. In Shantung Province, for instance, the successful reforestation of Tsingtao, the sporadic remnants of forests around temples and on less accessible sites, and the nature of the profile of the Shantung brown soils all bear witness to the fact that the hills and mountains were originally forested. The barrenness such as one finds today is not the response of physical environment, but the fault of man.

The Buddhist philosophy of the preservation of all life, and the demand of that religion for isolated seclusion have preserved throughout the ages many remnants of primeval forest and even aided new forests to grow up. These preserved cases are of great scientific value in showing what the original natural vegetation was, thus enabling modern reforestation to proceed on a sound biological basis.

Every measure for maintaining forest reserves and for reforestation should have nation-wide support and government assistance. It has been pointed out that in sparsely inhabited regions such as the borderlands of Yunnan and Sikang provinces, land classification is extremely important as a preliminary step for further settlement. At any rate a primary classification of the land into forest, grazing and agricultural regions is a necessary preliminary step. The practice of agriculture on a land which is physically optimum for forest is not advisable, nor is the conversion of forested land to grazing purposes. Forests should be exploited for timber production only under proper management.

LIVESTOCK AND FISHES

(1) Pastoral regions vs. agricultural regions

In the arid regions of interior drainage, livestock grazing is the chief activity, whereas in agricultural regions livestock grazing is merely auxiliary to rural life. Livestock production in the prewar period is shown in the following table.

(A) Pastoral regions	
Kinds of Livestock	Per cent of total no.
Sheep	63
Cattle	15
Horses	11
Goats	9
Camels	2
(B) Agricultural regions	
Kinds of Livestock	Per cent of total no.
Pigs	43
Oxen	15
Goats	12
Horses, mules, donkeys	12
Sheep	10
Buffalo	8

Nomadism is a phenomenon of the steppe. The frontier people, especially Mongols and Tibetans still remain nomads. In the early spring, people begin to set fire to grass land as an aid to plant growth. This customary practice, as results testify, is beneficial as a stimulant for the development of dormant vegetation. As the steppe starts its new life again, herdsmen come out of their winter shelter and bring their simple tents and livestock to roam from place to place. In the summer as grass grows tall and abundant, it hides the treasure of many herds; only when gentle wind stirs the waves of the grass are they brought into sight.

When railways are developed and cattle raising is scientifically improved, mobility in nomadic tribes will no longer be an urgent necessity; consequently, their society will be less characterized by nomadism than it is today, although the economic structure will remain pastoral. The storage of hay or fodder crops will accordingly become a general practice, and pastures formerly unused will be opened up by excavating wells. The result will be a simultaneous increase in the number of sheep and cattle, and an improvement in the quality of stock.

So great is the need for subsistence crops in agricultural regions of China that rural economy does not permit extravagant use of land for the raising of numerous meat animals. There is no dairy industry and cattle are used primarily as draft animals. On the other hand, animals such as swine, goats and poultry, which can subsist on the products of the farm, play an important part. Stable-feeding is the only method whereby farmers can raise a few animals.

In all pastoral regions overgrazing and other mismanagement of grazing areas present problems that must be solved. Lack of communication and transportation between these regions and agricultural regions is among the factors that have prevented develop-

ment of a balanced economy such as found between the Western grazing areas and the Eastern portion of the United States.

(2) Horses, donkeys and mules

Horses. The horses of China may be divided into three main types: the Mongolian horses of the grassland and dry-farming areas, the ponies of the rice region of Southeastern China, and the small horses of Sikang and portions of adjoining provinces. There is considerable variation within each type, and several subtypes—Illi, Sining and Hailar horses—are recognizable among the Mongolian horses. There may be some admixture of Kirghiz blood in the Illi horses.

For endurance and cleverness, the sturdy Mongol pony has few rivals. They are divided into herds. A herd which is usually composed of 500 animals stays two weeks at a place, and then move elsewhere. An interval of two to four weeks is necessary before the herds are driven back to the original site in order to allow the grass to grow. Late in fall when grass becomes thin, men and horse return home. In winter, a complementary ration of oat and bran is given them besides whatever withered grass they can find under the snow. For protection against the bitter cold they grow an extra suit of hair.

Many of the Mongolian ponies have been transported to the dry farming region and are used there for farm power, along with draft cattle. Horses in South China are not as extensively used as in the North, and are often referred to by the provincial name, such as Szechuan ponies, Kweichow ponies, etc. They become very adept at running up and down the slopes.

Sikang horses are noted for their stamina and ability to climb, especially at high altitudes. In view of the geographic location, such horses might well have been a hybrid of Sining horses and South China ponies. Many of Sikang horses are used along the pack trails into Tibet.

In all parts of China a horse performs many tasks. It is used for riding, for packing, for farm and commercial draft power, and in the army for cavalry and artillery work. The extent to which horses are employed in the services mentioned above varies with different sections of the country. For example, they are used to a greater extent for riding in the grasslands than in the farming areas. Sometimes mares are useful for production of milk. Wealthier Mongols may keep a number of mares to produce milk from which kumiss, a type of wine, is fermented. Horse meat is also used to a limited extent in some areas. Considerable quantities of horsehair are exported from China to foreign countries; a small quantity also goes to Korea, where it is used in making Korean hats.

Donkeys. Donkeys are numerous and important in North China. These sturdy little pack animals can carry a variety of loads, from coal to foodstuffs, and they are also used as draft animals, both in plough and in carts.

Mules. Though mules are produced in regions where donkeys and horses co-exist, the important production centres are in the Wei and lower Yellow River Valleys. Most of the mules are produced by mating donkeys to Mongolian mares, and the size of the mule depends to a large extent on the size of jack used. The mules sired by large jacks are highly prized for their ability to pull heavy carts used in highway transportation. Mules do not reproduce, except in rare cases. Donkeys and mules are very little used in the grasslands, except along the borders where Chinese farmers have moved into the valleys that can be cultivated. Nor are they of much importance in the rice area, except along highways and in some very mountainous regions.

(3) Cattle, buffaloes and yaks

Cattle are used throughout China. Water buffalo are limited almost entirely to the rice area, where they are the most important work animals in the ricefields. Yak-grazing characterizes Tibetan culture. It is a species of ox which occurs both wild and domesticated in Tibet and bordering provinces.

Cattle. Cattle are the chief source of power on farms in the dry-farming region, but they share this responsibility with water buffalo in the rice region. In addition to being employed in all kinds of farm work, cattle are used extensively as pack animals, especially in southern China, where few horses and donkeys are available. In the grasslands and adjacent areas of the dry-land farming region cattle are used also for milk production.

In order to distinguish from water buffalo and yak, all cattle in China are called "yellow cattle." They are of two main types. The draft cattle of the farming region are of the humped species common in the Orient. The main difference between these cattle and the European cattle lies in the enlargement of the hump on the top of the shoulders. The chief reason that the native cattle are so well adapted to work is to be found in the hump, against which the yoke fits so well. The colour varies from yellow red to brown red and sometimes pure black. While the amount of milk yielded is very small—so small that cows are seldom used for milking—the quality is very good, the fat varying from 6 to 8 per cent. Beef is mostly eaten by Moslems. The cattle in most of the grasslands are less muscular and have no hump, being somewhat similar to the dairy type in general build. They are reputed to produce milk of a better grade than the average heavy draft animals but the milk they produce is not qualitatively and quantitatively up to standard to qualify them for dairy animals.

Up to the present time no attempt has been made to introduce cattle of the modern beef breeds into China. On the other hand, dairy breeds have been introduced and are becoming popular as dairy cattle. This is especially true in large cities along the seacoast. Better prices offered for exported beef will stimulate the beef industry, and

the demand for milk within China must be met. Recently in Shantung beef cattle raising has proved profitable after a long practice; Tsingtao is noted for the export of beef, a part of which was used to supply the demands of the United States army in the Philippines.

Water Buffalo. The water buffalo, as its name implies, likes water and can trudge its way with comparative ease in mud. It is also a quiet-tempered animal. The animal is almost exclusively employed on the rice field, the labour for which by nature it is admirably adapted. In Szechuan a considerable number of them are used in sugar mills and salt wells.

In China the buffalo chiefly serves as a draught animal, and is slaughtered for beef when it can no longer serve on the field. Of recent years some dairies in Canton have been using buffalo for milk. Much horn is exported for making knife handles or other articles, as are also dried hides, for leather, of both the cattle and buffalo.

Yak. The yak is about the size of ox, with black, long horns and a bushy tail. It can endure the severe temperature of the cold regions of the Tibetan Plateau. Old bull is a magnificent animal, with long hair reaching almost to the ground. From this characteristic it receives its Chinese name of "mao niu" or "hairy cattle." The lives of many Tibetans are dependent upon the yak. These animals are herded on high mountains in spring, summer, and fall, and in the valleys in winter. In addition to being employed as beast of burden, the yak produces milk, which is one of the staple sources of food in the high plateau regions. It is also used for meat, which is excellent and tastes like beef. The milk is not drunk as such, but churned into butter, which is then mixed with tea to prepare the favourite drink of the Tibetans, buttered tea. Thus, though not directly a beverage, milk serves as an ingredient of drink. The Tibetans prefer to drink the tea rancid. The butter is plastered over the skin as an ointment for protection from wind. It is also used as fuel in the candle pots in the lamaseries. The long hair of Yak is utilized for making cloth for tents and for certain other purposes. The hides are used for leather.

During spring and summer, butter and a crude casein are manufactured and stored up for use during winter months. Sometimes during severe winter storms, yaks are fed with dried casein and thus kept alive.

Pien nu. Pien nu, a hybrid of yak and cattle, is usually produced by mating yellow-cattle bull to a yak cow. It is intermediate to the yak and cattle in conformation, and is larger and stronger, exhibiting the features of hybrid vigour. The hair is also intermediate in length, of a colour similar to that of the yak, but speckled with brown pigments.

The male hybrid of pien nu are sterile, but the female are fertile. They are prized as pack animals, and females are generally believed to produce more milk than the yak cows. They are produced in all areas where yak are found. Both yak and pien nu are introduced

and allowed to propagate in adjacent farming regions in western China which are raised to high altitudes.

(4) Camels

Practically all camels in China are of the humped type. Their primary use is for transport of goods and riding in semi-desert and desert areas. The "ship of the desert" are important in most of arid grassland area, except Tibet, Sikang and southern Chinghai. Camels and yaks belong to the Mongolian and Tibetan cultures respectively. Camels are worked mostly during the cooler months of the year, partly owing to the necessity of affording them the summer heat, and of fattening them during spring and summer, so that they will be able to work during the following fall and winter. Feed supplies are scarce along the caravan trails, and as a result the reserve energy stored in the animals' humps is used up; by spring the humps are thin and fall lopsided. The camels are then taken to the mountains to graze, and the humps gradually fatten and become erect. As salt constitutes an essential diet of the camels, it is usually spread on the grass for the animal to nibble at, together with the grass. Camels usually travel 20 to 25 miles in one day on long trips and up to 50 miles on short trips in 24 hours. The strongest camels carry 600 pounds and cover 700 miles in 30 days. They also travel outside Central Asia, in commercial transportation, especially in Kansu, northern Shensi, Shansi and Hopeh, and Jehol provinces. The old meeting-point of the caravans was Peiping. Since the building of Peiping-Pao-tou Railway, the use of the camel has been restricted to some extent.

Camel's hair is collected at Kweisui (the best) and other marts. Wool, skin, meat and milk are merely important by-products from these work animals. Large quantities of camel's hair, or camel's wool are exported from China. Most of the hair grows on the neck, the humps, and on the upper part of the legs of the animal; and the fleece is cast off in the spring each year. Hair of the best quality is obtained from animals which are not set to hard labour; whereas the hair of animals constantly engaged in drudgery, such as carrying merchandise (particularly coal, lime, etc.) is exceedingly filthy, coarse and matted and is of very little use. Camel's hair, buff or various shades of brown in colour, is not as curly as sheep's wool. It is employed in the manufacture of coarse shawls, blankets, and various other fabrics, the yarn made from it being usually mixed, however, with other yarns.

(5) Sheep and goats

Sheep. Sheep are fed chiefly on grass, but occasionally also on shrubs and dry bushes. Calcareous soils which usually have a good under-drainage is a desirable factor in sheep-raising. The scantiness of population is also one of its conditions. On the other hand, in regions of dense population,—which factor necessitates an intense cultivation for its subsistence—sheep diminish and sometimes even disappear. Sheep are of great importance in the grass-

land of Central Asia, and of less importance in the dry farming region of northern China. In rice areas there is little land for grazing, and the warm, damp climate intensifies the parasite problem, and so sheep are important only in the mountainous provinces and a few silk-producing areas where they are confined and fed on mulberry leaves, the manure being used to fertilize the mulberry trees. Sheep in the grasslands are usually herded in flocks of 100 or more, with some flocks numbering 1,000 or more. The largest flocks belong to lamaseres. In farming areas flocks are usually less than 100 in number and often include only a few sheep. The Central Asian sheep are all fat-tailed, some having tails that weigh as much as 20 pounds. During months of good pasturage fat is stored up in the tails. In winter they must paw through the snow in search of whatever scanty food available. Then they literally "live off their tails," so that when spring comes their tails are thin and shriveled, ready to begin anew the function of a storehouse.

Every bit of the sheep is used: the meat is eaten, the hide cured with the sediment of the kumiss churning, and the intestines saved for bologna. The use of mutton as a staple article of diet is limited to the grasslands, cities in and near the grasslands, and to farming areas where a considerable number of sheep are raised. Herds to be slaughtered move on foot from grassland areas to such cities as Peiping and Tientsin that are within driving distances.

Wool is the chief commodity derived from sheep production. Wool of the best quality comes from Chinghai Province, called Sining wool. The wool is reasonably good for carpets, and China is known in the world wool trade as an important source of carpet wool. In China the outer and under coat are frequently sorted by hand so that the under coat may be used in making finer-quality materials. In some Mongolian and its adjacent areas it is common practice to comb the under coat from the sheep in spring, and to shear the outer coat sometime during summer or fall.

Wools are made into clothing, blankets and felt. The felt is used for boots, and for covering the yurts in which many Mongolians and some others live. Pelts of the young sheep are used to line gowns as protection from cold winds. Some skins are made into leather. Inflated shepskin rafts are used in the upper course of the Yellow River. Drippings collected in corrals at night are utilized as fertilizer or as fuel. Surplus wool is sold to provide cash for purchase of the few such manufactured articles as are required in the simple life of the grassland peoples. Hence, throughout the grasslands, sheep are the most important animals in the economic life of the people.

Before the war the port of Tientsin monopolized the export trade of wool, ninety per cent of China's production being shipped therefrom. China's domestic supplies of wool could support a considerable development of wool-weaving industry. Some of the wool

is washed before reshipment to the manufacturer; the center for this process of washing is located at Lanchow. During the war much of the wool has been exported to the Soviet Union.

Efforts have been made to introduce merino sheep from Australia into China; good results have been obtained, and there seems no reason why the merino sheep should not become acclimatized in China as it is done in so many other countries.

Goats. Goats are found in all parts of China. Like sheep they graze on grasslands, and are fed on dry-farming region; and they are numerous throughout the rice region where sheep are raised. Goats are raised primarily for their meat and skins.

Goatskins are an important item in China's export trade. These skins are used for boot tops and also for book-binding. The best skins are found in the west. Their quality gradually deteriorates as their places of origin lie farther and farther east. Goat hair is used in making carpets, cloth, etc. In some areas goats are milked, but the quantity is low. Goat meat probably ranks next to pork in the amount eaten in the farming areas and next to mutton in the grasslands.

(6) Swine

Swine are the only animal that have been domesticated for their flesh alone. They are the descendants of the forest-dwelling animals whose life habits were adapted to a rich and concentrated diet of nuts and roots dug from the forest floor. In the grassland areas there is little feed suitable for swine; consequently few are raised. Swine swam in large numbers in Chinese farmhouses. In most parts of the country is found the common white and black swayed-back hog. They are of the fat or lard type. Their meat is of good quality and cures fairly well. Wheat bran is known to be better feed than rice bran, but it usually costs more. In the vicinity of breweries, brewers' grains, a by-product of the rice-wine industry, forms a large part of the ration. Vegetables and green cut grass are also fed. In regions where corn is cheap, it furnishes the main fattening part of the ration. The Chinese consume vast quantities of ham and pork. Chekiang and Yunnan ham is reputed to be of the best quality. These hams are usually cured in the fall and winter.

Bristles, the stiff hairs which grow on the back of the hog, are an important by-product of the slaughterhouse. Bristles are used chiefly in brush-making, the whitest being preferred for tooth, hair, hat, clothes, and paint brushes; bristles are also used by shoemakers. A good bristle should be thick, firm and elastic; the longer the bristle and the lighter the colour, the higher the value. Their quality is considerably affected by the climate; the colder the climate, the better the bristle. Hence bristles from South China are not so good as are those from the central and northern provinces. Bristles from Szechuan, particularly white ones, are of a good quality and form an important article of export.

(7) Poultry

Poultry is an old and widespread industry in China. Poultry kept are hens, ducks and geese, which number 311 millions in total. Nearly every household in the farming population has a few chickens. China used to be one of the largest world exporters of egg and egg products. England and the United States are the chief importers of Chinese cold-storage eggs.

Chicken. Chickens are kept around homes in villages, primarily as scavengers of kitchen and farm wastes. Commercial poultry farms of the type and scale common in the United States are practically unknown. Egg production is low, approximately 50 eggs annually per hen. The greater production per hen in Shantung Province is probably due to the feed used in that region, which consists principally of beans, whole and cracked. Beans contain a high percentage of protein and are an excellent food for egg production.

The export of eggs of late years has risen to be an important trade of China. These exported egg products are used in the United States chiefly in certain manufacturing industries. The tanner uses liquid egg and yolk, textile producers make use of albumen in printing certain kinds of cotton cloth which does not readily absorb the pigment. Albumen is used also for the finishing of paper, thickening of ink, and in the manufacture of sensitized photographic plates.

Ducks. The utilization of small streams, canals and ponds for raising ducks has been practiced everywhere, especially in the Yangtze Delta. Beginning from the later part of spring, thousands of ducklings are seen paddling along the banks of the canals. As they grow they find more of their feed from the water than from the pail. The feeding and sheltering of a thousand ducks requires only the labour of a man and a boy; so the raising of ducks is economical.

Specialized operators also herd large numbers of ducks in the rice-fields. At the time the rice is harvested these operators assemble several hundred to a thousand young ducks. The flock is driven slowly to a central marketing point, feeding on fallen rice in the fields along the way. In exchange for the rice picked up in their fields the farmer get the manure that is left behind.

Geese. Geese are kept in small numbers, usually no more than one pair to a farm, for the eggs and meat produced. They usually forage themselves in streams, ponds, and around the farm. Duck and geese feathers are exported for bedding factories.

(8) Improving livestock

In crop-producing areas of China, the major effort is now directed toward the production of grain for human food, and with the existing density of population it is necessary that this emphasis continue. But there is room for increased emphasis on livestock and for improving the environment of livestock without interfering with the production of human food. In grassland areas, crop production should supplement livestock production; while in the farming areas livestock should supplement

crop production. Careful studies should be made of the possibility of producing more forage crops, especially legumes, and root crops that could be used for livestock feed so that the diets of working animals on these farms can be improved. Similar study should be made of the possibilities of improving the method of feeding swine and poultry. Some grain might be diverted from human consumption for these purposes and to support milk production, either by animals that are used for work or by goats that are kept for this purpose, by way of augmenting the amount of animal protein and calcium in the diet of farm people.

The important consequences that arise from the close connection between the economy of grassland and the economy of the more densely populated area of the country have already been noted. The resources of the grassland should be harnessed to provide meat, milk, wool, hides, and other products that are needed in the diet; they must also administer to the manufacturing purposes in other parts of the country. Adequate means must be developed to make these products available. In turn, the more densely populated areas will find a market for certain food materials and manufactured products in grassland areas. Increased exchange of products between these two areas should be encouraged, in the interest of a better-balanced national economy.

(9) Fisheries

China has an important source of wealth in her sea and river waters—fish, which are abundant and rich in variety. Carps dominate the freshwater fishes. They are fundamentally non-predacious, feeding on small animals and even on vegetable matter, and are without teeth in the mouth. The cultivation of freshwater fishes in China is extensive. Pond-fish culture doubtless complicates the range of various species and sometimes causes confusion between artificial forms and natural races. Almost every freshwater fish, large or small, is utilized for food by the Chinese.

The well-known Hilsa are marine, occurring along the coast, but they ascend the rivers to spawn and may penetrate to waters a thousand miles or farther from the sea.

The coastal fisheries of Shantung, Chekiang and Kwangtung are especially important among the world's greatest fishing regions. Here, the fishing boats and fish replace the tents and herds of the steppe. It is estimated that along the seacoast the total number of junks exceeds 100,000, and that there are more than 1,000,000 fishermen. Normally, the total value of sea products amounts annually to almost US\$ 100 million. But there are as yet only a few steam-trawlers, and the industry is far from being developed in the sense of modern fishery.

Fish, both fresh and salted, is a staple article of diet in many districts. The cuttle fish trade constitutes a very important activity in many of the Southern ports of China, particularly at Ningpo, where the market is supplied with fish caught in the

waters of the Chusan Archipelago. Hankow is one of the chief markets for dried cuttle-fish.

Fish maw (yutu) consists of sun-dried air bladders or stomachs of sharks and other large fish. It is prepared in great quantities in Ningpo and in other Southern ports. The Chinese use it extensively as food, and consider it delicious and nutritious. Oysters are found in abundance in various places along the coast of South China. The beds occur chiefly in lagoons or sheltered waters, which are subject to the ebb and flow of the tides.

Seaweed is largely used in China as an article of food, which is palatable and scarcely less delicious than some of the vegetables. The most important of edible kelps, known as hai-tai, is dark brown or almost black in color and in long, narrow, ribbon-like strips. A part of them are imported from Japan, and in spite of its foreign origin, it has been sold in the inland provinces thousands of miles from the port of entry. The Chinese from early days use the kelps in the treatment of goiter and other glandular troubles. Now, the curative principle is known to be iodine. Seaweed also forms a very valuable manure.

MINERAL RESOURCES

(1) Coal

Coal occurs at various geological horizons from the Carboniferous to the Tertiary. The most important is Permo-carboniferous coal series which is extensively distributed and contains the bulk of coal mines of superior quality hitherto located. The Kailan Mines belong to this age. Still higher, up in the numerous horizons of the Jurassic and Cretaceous, much good coal is mined. The Tertiary in Manchuria is represented by enormously thick coal beds of Fushun Mines.

The three greatest coal reserves in the world are found in Western Europe, Eastern United States and Northern China. China's coal reserve, according to the estimate of the National Geological Survey, totals approximately 240 billions tons. Coal fields are found in almost every province, but about 50 per cent of the total reserve is in Shansi and 30 per cent in Shensi, on both sides of the mid-Yellow River. The coal mine of Shansi, if properly developed, will rank with those of England or Pennsylvania.

Coal mining was the principal mineral industry in China before the war. The total production in 1933 amounted to 28,700,000 tons, of which, however 30 per cent was Manchuria's output. The development of coal mining is largely dependent on transportation facilities: almost all the mines, with an annual output of over 200,000 tons which lie to the North of the Yangtze River, chiefly along the rail lines, have to be transported to regions where they are needed. The Fushun Coal Mines, 34 miles North-east of Mukden the largest in China, used to produce from open pits and underground operations more than 7,000,000 tons in a year. The Kailan mines in

Hopei Province, worked by the Kailan Mining Administration, a Chinese and British joint company, ranks second, with an annual output of about 5,000,000 tons. Kailan coal is shipped abroad or to Shanghai and other Yangtze ports mainly through Chinwangtao.

(2) Iron

The bulk of iron ores in China—over two-thirds—belong to the Archean ore of Manchuria. These ores are very low in iron deposits, averaging around 35 per cent, but new methods of concentration have raised the economic value considerably. Iron ores occurring in the eroded surface of the Ordovician limestone at the bottom of Carboniferous coal series are widely distributed in Shansi. They are of good quality and have been for hundreds of years the basis of Chinese iron industry on a small scale. In the Central Yangtze basin, like Tayeh and other places, iron deposits of good quality related to the diorite intrusions in Mesozoic age are distributed near the Southern bank of the Yangtze River. The magnetic iron ore of Tayeh is exceedingly high in iron content (containing 60 per cent to 63 per cent of iron,) as compared with low-grade Manchurian ores.

China's iron resources are not as great as coal. Tegengren estimates the iron ores suited for large-scale exploitation at only 952 million tons. A new estimate made by the National Geological Survey in 1942 is 1,694 million tons, of which 72 per cent lies in the Northeast. The total reserve of China is far less than that of the United States, averaging not more than 4 tons per person as compared with 38 tons in the latter.

Besides Manchuria, the most important iron-producing center is the Yangtze Valley, with a total output of slightly more than 1,000,000 tons in pre-war years, the bulk of which was exported to Japan under contract. The Tayeh iron deposits, situated about 15 miles from the Southern bank of the Yangtze River some 65 miles downstream from Hanyang, were operated by the Hanyehping Iron and Coal Company, and coking coal is obtained from the Pinghsiang coal deposits about 325 miles to the South. Other important iron ore regions are the Ksuanhua-Lungkuan districts along the Peiping-Kalgan Railway in Southern Chahar, and Chinling-chen on the Shantung Railway, 175 miles West of Tsingtao.

In 1931 Manchuria produced 762,000 tons of pig iron and 270,000 tons of steel. By the beginning of 1939, the Showa Steel Works, based on the Anshan iron mines in Liaoning Province, had completed its expansion programs, bringing the capacity up to 1,700,000 tons of pig iron and 580,000 tons of steel.

(3) Petroleum

China's oil reserves are very extensive, stretching from Sinkiang Province along the Tianshan Mountains to the Chilian and Lu Pun Ranges in Kansu, and finally terminat-

ing in the Yellow River basin at its great bend between Shensi and Shansi. The oil-bearing rocks are of Cretaceous to Early Tertiary age. The Yumen reserve in Kansu justifies the most optimistic expectations. At a depth of 200 meters the oil is two meters deep, at 350 meters the thickness is 12 meters and at 600 meters it is 26 meters. That is the deepest the Chinese have driven so far, and engineers believe that a thicker layer lies farther down.

In 1941 the Yumen oil fields produced 3,630,000 gallons of crude oil, part of which has been refined into gasoline. Efforts are being made to install new oil-refining machinery and storage equipments. Other promising regions are located in Wusu district near Tihwa, the capital of Sinkiang, and the Kiangyu deposit of Szechuan. The latter is by far the richest in China, surpassing the Yumen fields. Kiangyu (River Oil) City is 80 air miles Northeast of Chengtu, capital of Szechwan Province.

Oil shale deposits, the geological age of which is Permian, Jurassic and Tertiary, are now known to be widely distributed in China. The most important is the oil shale which occurs at Fushun, Liaoning, estimated at more than 5 billion tons. The oil content is not very rich: only 5 per cent is oil. For the most part, the shale bed rests conformably upon the main coal seams in the Fushun field, hence the mining cost would be much reduced, as, in any case, the shale has to be stripped away for coal mining. For the purpose of exploiting the oil, the South Manchuria Railway Company erected a distillation plant in 1930. In 1939, the annual production capacity was reported to have been brought up to 360,000 tons.

In addition, other shale oil deposits have been found in Liaoning, Jehol, Shansi, Shensi, Szechuan, Hunan, Kwangtung, and Kwangsi.

(4) Metals

Copper. Although copper has been found in almost every province in China, no first ranking deposits have been reported. Copper mining and smelting industry were begun in the early days of history, and save the frontier regions, notably Sinkiang and Manchuria, which were almost untouched, all over the country, copper deposits, after long centuries of exploitation, are exhausted. China's normal peacetime consumption of copper averages 10,000 tons annually, —an amount which far exceeds the total output from the mines. The principal copper deposits in Southwest China are those of Tungchuan (Northeastern Yunnan) and Penghsien (Western Szechuan). The Tungchuan deposits occur as nodules or fissures in Triassic limestone. In the seventeenth century the mines were placed under the supervision of an Imperial mining board. At the end of the same century the output was about 6,000 tons a year. The present decreased production of copper is mainly due to the primitive methods employed in mining and concentrating. The

Penghsien deposits are found in the pre-Cambrian crystalline rocks. The Hweili deposits in Sikang Province have not yet been mined. The Manchurian mines were best developed at Tienposhan, Kirin, by the Japanese. A large and promising deposit was recently found at Fengcheng, Liaoning.

Lead and zinc. In most mines the ores of the two metals are found together, sometimes in admixture with silver. The leading lead and zinc producing center of Suikuoshan is located near Hengyang, in Hunan Province, which is operated by modern methods. The deposits lie in the Permian limestone. Normally, smelting facilities were centered largely around Changsha, where the annual capacity was 2,000 tons of lead and 8,000 tons of zinc. Kungshan near Tungchuan, Yunnan, and Hweili in Sikang also possess good reserves of lead-zinc ores. In Manchuria, Chinchow in Liaoning is reported by Japanese to have contributed substantial tonnage of lead and zinc.

Gold. Gold has been found in almost every province of China, usually as placer deposits in stream gravels, to a smaller extent in quartz veins. The most valuable deposits are in the far North near the Siberian border, in North Manchuria and Outer Mongolia; but substantial amounts are found in Western Sinkiang at the foot of Altai and Tien Shan ranges and along the Tibetan borderland. Modern methods were employed in Manchurian mining; placer gold has usually been extracted by primitive methods of panning. Vein gold has not been widely exploited. The principal Manchurian yield is along the Amur River in Heilungkiang Province. Gold is derived from the gold-bearing quartz veins in the Archean rocks. It occurs along the flanks of the granite mountains which is settled and heavily forested. As winter is intensely cold, work can be carried out only during summer months. Eastern Shantung Peninsula is also noted for its gold deposits.

Projects of mining gold in Szechuan, Sikang and Chinghai Provinces have been started since the war. The region along the Yangtze River in Sikang was found to be rich in gold, hence the name, the Chinsha or "Golden Sand" River. The age of granite intrusion and of gold deposition is ascribed to the Early Tertiary.

Silver. China, despite the great use that she makes of silver, has few silver mines, and in recent decades her production constituted but a fraction of one per cent of the world's total. Almost all of her hoards of silver have come in the latter three centuries from the mines of America through trade with Europe and America. China, since her first contact with the West, has been a net importer of silver. A small amount of silver is produced in China as a by-product of lead smelting.

Tin. In respect of value, tin is the most important metal produced in China. For 1939 China's output of tin, totalling at 12,000 tons, represented 6 per cent of that of the world. Judging from these statistics, China ranked

fifth, in the world in production of tin, following Malaya, the Netherlands Indies, Bolivia, and Siam. About 80 to 90 per cent of China's production came from Koki, near Mengtze, Southern Yunnan. Two less productive areas constitute belts extending from Kiangsi Westward to Kweichow approximately following Nanling Ranges and from Fukien Southwestward along the coast to Hainan Island. The primary tin deposits follow great intrusions of granite that are related to the Mesozoic orogenic movement. Rich deposits are likely to occur at the contact of these intrusions and the overlying limestone formations (Devonian to Triassic).

The Koki mines began from the thirteenth century. The bulk of the ore was shipped to Hongkong and Haiphong for refining, and in 1932 a modern tin smelting plant was established at Kochi. The second province of tin production, chiefly from the Fuchow district, is Kwangsi.

Mercury. The mining of mercury is one of the oldest industries of China. The most important center is Kweichow Province, running East into Hunan and West into Yunnan. The annual production of cinnabar amounted to several hundred tons. No other country mined cinnabar on so large a scale. Mercury is valuable as a constituent in pigments, chemicals and explosives.

Manganese. Manganese is known to occur in Kwangtung (Chinhhsien), Kwangsi (Wuhsuan and Kweiping), Kweichow (Tsunyi), Hunan (Siangtan), Kiangsi (Loping), and Liaoning (Hsingcheng and Fengcheng). The deposits in Liaoning may prove to be the world's largest. Their contents were estimated at 200,000,000 tons and in 1937 they yielded 330,000 tons, a sizable output comparable to those of Austria and Soviet Russia. Other parts of China produced, in 1937 120,000 tons of ore, an amount which is more than adequate for use by the steel industry of the present day.

Tungsten. China has held the commanding position in the production and price control of tungsten ever since the famous Kiangsi deposits were discovered in 1915. She produced before the war approximately 40 per cent of the world's tungsten. Another 20 per cent came from Burma. Recently, however, the United States and Bolivia have increased their production. One workable tungsten belt extends South along the coast from Fukien to Southern Kwangtung and on to Hainan Island. Another richer belt, embracing Kiangsi, Hunan, and Northern Kwangtung, runs Westward to Yunnan. The district in Kiangsi, 200 miles North of Canton, is the best-known single district and is believed to be the richest.

Tungsten is especially valuable as an ingredient of high-grade steel, and is used in electric light filaments. China produced 15,000 tons of tungsten in 1943. At present, there is no ferro alloy industry in China, but the tungsten resources warrant hopeful prospects for such a development in the future.

Antimony. China holds a predominant position in the antimony market of the world. Except during war years, it produced between 60 and 90 per cent of the world's total annual output. The keenest competitors with China in antimony production have been Mexico and Bolivia. China produced 42,800 tons of antimony in its peak year (1947). Antimony ores were widely distributed in South China. Hunan is the leading producer, Kwangtung, Kwangsi, Kweichow and Yunnan produce small amounts. The most important mine is at Hsikwangshan, West of Changsha. Formerly the ore was concentrated and smelted at Changsha and exported from Shanghai via Hankow.

Antimony is valuable chiefly because it possesses the properties of forming alloy with tin, lead, zinc, and other metals, to which it imparts hardness and toughness. Lead-antimony alloy is the material for making acid-resistant valves and for manufacturing type-metal. In time of war, antimony is used in great quantities in the manufacture of shrapnel.

Nickel. China is lacking in nickel production. In Hweili district, Sikang Province, a deposit of nickel ore estimated at 340,000 tons, has been reported. Near Weining, Western Kweichow, ores in which nickel is found mixed with bismuth have been examined, and the metal seems to exist associated with cobalt in the Red River district, West of Kochiu, Southern Yunnan.

(5) Light metals

Aluminum and Magnesium are called light metals valuable for their properties of lightness, bright colour, immunity from oxidation, even in the presence of moisture, and of forming excellent alloys with other metals.

Before 1931 the extensive magnetite and bauxite deposits of Manchuria laid undeveloped. Thoroughgoing exploitation of these resources was undertaken by the Japanese after their seizure of Manchuria. With the available water power, Japan produced large quantities of magnesium and 12,000 tons of aluminum annually. The first large magnesite deposit was found near Tashihkiao in South Liaoning Province in 1913. Here the marbles of the Pre-Cambrian system are usually rich in magnesite. The thickness of the individual ore bodies is said to be as much as 90 metres. Later exploration uncovered reserves at many other places. The total reserves of the highest-grade ores are estimated at 600 million tons. Production rose to 400,000 tons in 1938.

The Liaoyang and Fushien bauxite deposits in Liaoning total 110 million tons of 40 to 58 per cent aluminum oxide. Reserves in Shantung amount to 271 million tons; or 68 million tons of aluminum. They occur in Permian green sandstone and shale formation. Good reserves of bauxite have recently been discovered in Northwest, and in Yunnan and Kweichow in Southwest.

In addition to the production of metallic magnesium and aluminum, magnesite and bauxite are used for making firebrick, flux, and magnesium and aluminum salts.

The largest alunite deposits in China occur in Pingyang, Southern Chekiang, not far from the sea coast. They are formed by intense alunitization of the Cretaceous volcanic tuff beds and rhyolite flows. The ore beds are 5,500 meters long, 180 meters thick and have an exposed width of 750 meters. The ore contains on the average about 60 per cent alunite, while ore of better grade contains as high as 90 per cent alunite. The reserve of alunite is estimated to be over one billion tons. Alunite can be used for extraction of potassium and aluminum. Alunite deposits also occur in Lukiang district, Anhwei Province. The total reserve of the ore, containing 25 per cent alunite, is estimated at 14,000,000 tons. This has long been one of the important localities where alum has been produced. Alum is used in making paper, as a mordant in dyeing, in tanning and in cement for masonry.

(6) Non-metallic resources

Phosphate: A deposit of apatite has been mined near Tunghai, Northern Kiangsu. The high-grade rock contains 49 per cent or more of phosphate. Rock phosphate deposits were discovered in Kuanyang near Kunming, of which a conservative estimate is put at 3,500,000 tons.

Guano, properly speaking, is an animal product, since it is formed by the accumulation, through ages, of the droppings of birds. It has, however, mineral functions, and may be described as an earthy nitrate or combined nitrate and phosphate rock. Pratas Island and Paracel Islands in the South China Sea contain rich deposits of guano.

Sulphur. Sulphur exists in its pure state in many localities of Western Yunnan as a deposit on the mouth of hot springs, but it is not exported, on account of the prohibitive cost of transportation. Sulphur plays an important role in the refining of petroleum, the pickling of iron and steel, the manufacturing of celluloid, the preparation of fertilizers, and a host of other important operations.

Asbestos. Asbestos is a variety of the hornblende family of minerals, and is probably the only natural mineral fibre used for textile purposes. Asbestos produced in Yangshan, Northwestern corner of Kwangtung, is exported to Hongkong and made into non-conducting coverings for steamship boilers. It is also found in Laiyuan, Hopei Province, Southwestern Szechuan and Sikang.

Kaolin. The kaolin deposits in Kintechen, Kiangsi Province and Liling, Hunan Province are large and of high-grade. They are regular kaolin beds, one to several meters thick, in the Siluro-Ordovician phyllites and evidently of sedimentary origin. Many of them have been extensively mined by native methods and used for making high-grade porcelain wares. The

porcelain clay in Ithing, Kiangsu Province, is obtained from the fireclay beds in the Devonian-Lower Carboniferous sandstone formation.

Marble. The best marble works in China are those near Tali, Yunnan, where the quantity in sight is enormous. It has a curious staining of dark green and reddish-brown running irregularly through the stone, which in the finished panels (used for screens and pedestals) bears a strong resemblance to trees and scenery. The marble stone produced in Kaotze, near Chinkiang, Kiangsu Province is also of high quality.

(7) Salt

China's salt supply, a government monopoly for the past 2,000 years, is produced from three sources: sea, salt lakes and salt wells. Sea water salt of the coastal provinces makes up the greatest part of the total output, constituting three-fourths of the whole country's consumption. During the months from April to September, sea water is pumped into large tracts of land lying along the coast, evenly spread over the wide area, and fully exposed to the sun. Through the agency of solar evaporation, salt is formed as a residue which heaps up in pyramids in open air. South of the Hwai River, where the humidity is high and evaporation does not take place quite so readily as in North China, as an artificial aid, the brine is often boiled under fires during the latter stages of the process in order to hasten on the evaporation. The coast of Kiangsu is now the most important single area of salt production, commonly known as Hwai salt.

In Northwestern provinces and Mongolia salt is obtained from natural salt lakes. In some cases the water has entirely evaporated or at least dries up during a part of the year, so that it is only necessary to scrape up the salt. Elsewhere the salt must be evaporated, as it is done along the seashore. The Chieh Lake in Southwestern Shansi constitutes one of the chief centres of salt industry of China, and yields about 140,000 tons of salt annually. A considerable amount of sodium sulphate is obtained in this salt water.

In Szechuan Province salt contained in the Cretaceous and the Triassic red shaly and limy beds is mined through numerous brine wells in many areas throughout the basin. At Tzeliuching, Southeast of Kiating, borings are made, often through solid rock, to a depth of some 3,000 feet. The diameter of the mouth of such a well may not extend more than 14 inches. Brine is drawn up in bamboo tubes some 80 feet long, by 5 or more buffaloes working around a large drum. At some places labor and expenses are saved by sinking the wells in pairs, so that the drawing up of one tube automatically causes the other to sink. From the wells the brine, which is of high density, is carried in buckets or conducted by bamboo pipes to the boiling establishments, where it is boiled by natural gas or by coal and grass-fuel.

REVIEW OF SITUATION IN HONGKONG

At the annual meeting of the Hongkong General Chamber of Commerce, the Chairman (Hon. P. S. Cassidy) reviewed the current situation in Hongkong. An extract of the review follows.

Trade of Hongkong:—

The very gratifying trade statistics of Hongkong showed that in 1943 values exceeded any previous year's results. Imports totalled \$2,077 million, exports \$1,582, the respective increases over 1947 being 33.93% and 30.07%. The outstanding feature of the year's trade was the further shrinkage of the proportion of trade with China in relation to other parts of the world, the percentage of imports from that country being 20.7 as compared with

38 in 1938, and exports to China for 1948 being a mere 17.7% as compared with 45% in 1938. Even taking into account a substantial increase in the trade with Macao, and making allowance for unrecorded movements of merchandise, it is obvious that the sphere of Hongkong's entrepot trade has widened considerably. The trade of Indonesia and Indochina has been disrupted by political turmoil, and although these countries still continue to be a big market and important sources of supply, there has been a considerable decline from pre-war values. Other areas of South East Asia, however, have prospered and there was a marked expansion in their two-way trade with Hongkong. Imports from the United Kingdom show a big increase over 1947 and still more over 1938, the year's value being 5½ times what they were in the latter year. Imports from the United States have formed 18.6 per cent. of the total imports for 1948. The most notable development of the Colony's trade has been with Japan and Korea. There was an increasing outflow of merchandise from Japan and much of it was dealt with in this Colony either en route to overseas destinations or for discharge here, and subsequent re-sale to other markets. Most of the foreign firms established in Japan before the war have now recommenced business there. In the case of Korea, certain Chinese firms showed commendable enterprise in chartering vessels to take mainly consumer goods to North Korea where they were bartered for local products. The annual trade statistics show that the exports to Korea amounted to \$58 million against imports of \$42 million, figures which cannot be compared with the previous year, because there was no recorded trade in 1947. But, despite the enlarged scope of our entrepot trade, most of us feel that our natural role is in relation to China. Whatever the outcome of the present political struggle, the produce of China must find an outlet to foreign markets and the standard of living, however relatively low it may have sunk, demands consumer goods which mainly come from outside. Ways and means will be found to maintain the exchange of produce for goods. China has greater need than ever of the services which Hongkong can supply; she will continue to look to us to fulfil our functions as an entrepot.

Business Conditions:—

Margins of profit have come down very appreciably and in many lines demand has fallen off, with the result that there have been sales under replacing cost. But, generally speaking, replacement costs continue to rise, and where seasonal stocks have had to be carried over it is to be hoped that there will be no cause for anxiety about effecting sales next season. Nevertheless, discretion is called for.

With the decline of the sellers' market, competition between merchants has intensified and there has been a tendency to relax the usual contract requirements. Merchants should obtain margin in respect of forward contracts and keep credit facilities to a minimum. But this counsel of perfection has been more and more neglected. Merchants should bear in mind what will happen if a slump sets in and ensure that all reasonable safeguards are taken so that the effects of over-optimistic buying are reduced to a minimum. In this respect the Banks are scrutinising more closely than ever requests for credit facilities on the part of their more venturesome customers.

Industry:—

Local industry has made considerable progress during the past year. Many of the obstacles to economic production which existed during the first year or two after the liberation have now been overcome, and at the close of 1948 there were 1169 registered factories in operation. The primitive type of factory set up in a dwelling house is disappearing, and is being replaced by properly-designed plant. The education of factory owners as well as employees has been influenced by industrialists from the North who, with their wider technical knowledge and experience, are helping to raise the standard of production here. The successful Industrial Exhibition organised by the Chinese Manufacturers' Union will have enlightened the public as to the wide scope of local industry, and it is gratifying to know that Hongkong manufacturers are keeping abreast of modern developments in production. The participation of local industrialists in last year's British Industries Fair was all to the good for it brought several of those who attended in touch with British buyers, and it gave them the chance of visiting various factories in England to see for themselves the many processes which are being used and the conditions of modern employment. There is no doubt that local manufacturers are building up a good reputation in many world markets, and it is vital that the standard of these products should be maintained with full regard to strong competition from other sources of supply.

The Port:—

In days gone by the harbour was inevitably referred to as the life-blood of the Colony. There is no doubt that it is. Nature has provided us with this magnificent area of sheltered water and man has equipped it with all the requirements of a deep sea port. The mass of wreckage which was the legacy of occupation times has been cleaned up and more and more small craft are now available for harbour work. Hongkong is extremely well served by wharf and godown organisations, and has no rival for a quick turn-round of vessels. Goods are brought from overseas or despatched

With the thickly planted bamboo well rigs, the Tzeiuching area, the largest salt-producing district in Szechuan, resembles an American oil field. At this area gas is struck as often as brine and provides a cheap and good fuel for salt boiling. The total production of all Szechuan works is about 425,000 tons a year. Modern well-drilling methods have been introduced in recent years and the output is increasing. The salt wells in Tzeiuching provide an essential raw material for chemical industry.

Yunnan is wanting in well proper saline rock, mainly from the Triassic red shale and sandstone formation, is mined and leached with water, or the flow of natural salt springs is gathered and the resulting brine boiled down. Mining methods employed there are crude. The total Yunnan production averages only 35,000 tons a year. The amount is smaller than the local need, which is to be chiefly met by salt from Kwangtung.

An example of marketing procedures is furnished by the Yangtze Valley. The consumption area of Hwai salt includes the hinterland of the Kiangsu coast, the whole of the Hwai River basin, and the basin of the Yangtze River as far up as Ichang in Western Hupeh. The Western half of Hupeh, however, uses salt from Szechuan also.

In Central Hupeh, North of the Yangtze River, gypsum deposits in Yingcheng district, which appear as a by-product of gypsum mining, constitute another source of salt. The producing areas, which lie from 400 to 900 feet below the surface, are reached by vertical shafts. Gypsum is exported from Hankow and is extensively used by Chinese in preparing beancurd. A small amount of gypsum is also produced from saline-rock in Yunnan.

A great part of the production of refined salt takes place in Tanku, near Tientsin where a soda plant was established before the war and later transferred to Tzeiuching. Impure varieties of soda are found native in arid regions in Northwest China. The Chinese used soda for making soap and bread for cooking, cleaning and dyeing purposes, etc.

ched to world markets by speedy cargo vessels which are in many cases a credit to the British ship-builder. The Colony's own ship-building industry has been handicapped by shortage of steel and other supply difficulties, but there has been considerable activity in repair work and the reputation of the local yards for first-class reliable work stands as high as ever.

Aviation:—

The part played by aviation in business life grows in importance every day. The figures of passengers and cargo handled by the Airport at Kai Tak are most impressive and, despite the physical drawbacks, together with the uncertainty about the future, the organisation of the airport has reached a relatively high standard of efficiency. A new industry has appeared in connection with the maintenance of aircraft, and we hope that this will grow in importance in much the same way that our shipbuilding and repair industry has in relation to the seaport. So far we do not know what progress has been made towards building a new air port. It is of vital importance that the Colony should keep abreast of the times for we cannot afford to find ourselves by-passed because of inadequate ground facilities for modern air-liners.

Situation in China:—

Not unnaturally, most people overseas have been apprehensive as to the effect of the political changes which have taken place during the past few months, and more particularly in regard to the spread of hostilities in a Southward direction. It is a mistake to assume that the basic character of the Chinese merchant will be changed by any political creed adopted in his country. By nature he is an individualist, and his inclination to trade will not allow his country to be fenced in and subject to domination by any foreign influence. Some distinguished visitors have expressed surprise at what appeared to them to be unjustified complacency on our part, and we have been accused of wishful thinking, but the answer is that we prefer to direct our energy to trade rather than to use it up by running round in circles wondering what to do next. We have the assurance of His Majesty's Government that it has not in mind any change in the status of Hongkong. We may, of course, suffer internal disorders, but we have every hope that the good sense of the inhabitants of this Colony will effectively scotch any underground efforts on the part of agitators. The Colony now possesses a police force which has reached a high standard of efficiency never before achieved, and the Commissioner of Police and his capable staff have the internal situation well in hand. Provided law and order can be maintained here as it has been so effectively since the liberation, then we need have no fear that our trade will collapse. The

EXCHANGE & FINANCIAL MARKETS

GOLD TRADE IN HONGKONG

Daily official business is carried out at the Gold & Silver Exchange Society while unofficial and inter-bank business is, as far as forward gold contracts are concerned, several times in excess of official transactions. The daily papers publish the morning and afternoon rates and many brokers issue their own market reports to their clients and to anybody who feels interested in the gold bullion business. While the International Monetary Fund "par values" (announced Dec. 18, 1946) prescribe a local price of HK\$ 138.958 per troy oz of fine gold, the local open market price is at present around \$259 or 86½% above the so-called par value of the I.M.F.

Hongkong Govt has however not legalised open gold market trading, thus depriving the community of additional income from stamp revenue on gold contracts, and the fact that an open market in bullion operates here has at times been tried to be concealed in deference to the I.M.F. and Nanking, with imports and exports of gold still prohibited, offenders being punished by forfeiture of the bullion (in any form even ornamental) when seized. Nevertheless, a very large gold and silver bullion import and export business carries on without little official interference. In 1946 the Financial Secretary here permitted the import of over 100,000 troy ozs of gold which were bought abroad (Mexico and the U.S.) at a high premium over the fictitious I.M.F. and U.S. Treasury rates of US\$35. Later on Hongkong Govt permitted the transshipment of gold, purchased abroad at rates far in excess of the I.M.F. par values, for delivery in Macao. Much of this transhipped gold as well as later direct shipments to Macao eventually were sent to Hongkong for distribution among the buyers in China and some other Far Eastern countries. During recent months Hongkong handled approx. 30,000 troy ozs of fine gold per week, i.e. this quantity was usually imported from Macao and then distributed among foreign buyers. In this Review's weekly reports on the gold market the import and export figures are regularly published.

To a large extent the prestige and stability of the Hongkong dollar depend on the operation of the local free exchange and bullion markets. Merchants from every country may convert here their funds into gold and silver bullion and into US\$ and other currencies. But while such transactions are freely possible the export and import of gold and silver are subject to strict control which would, if enforceable, strifle the operation

Chinese farmer will go on working and his produce will find its way down to the coast. The Chinese trader will not be put off getting goods into the country and, finally, the high seas will be safe for our ocean shipping.

of a free bullion market. The co-existence of a free gold trading exchange and an embargo on bullion imports and exports is illogical. However it is a fact.

Last year's merchandise imports and exports of the Colony were the largest, in terms of HK\$, in the history of Hongkong but so were the imports and exports of bullion. An enormous bullion trade, i.e. actual imports and exports, has been conducted here (vide our issue of March 2, p. 269), which, as far as gold imports and exports and silver imports, went without official cognisance while silver exports, by and large, were officially recorded. Hongkong Exchange Control secures from silver exports to the U.S.A. 25% of the proceeds.

The Chinese community particularly is fond of investing and speculating in gold. When the various Chinese governments in Nanking attempted to regulate in their own haphazard and irresponsible manner the gold trade in China they always failed and eventually created only strong antipathies among the class of people who were supposed to form the government's backbone: the merchants and manufacturers. The Communist authorities in North China have not interfered with the bullion trade and free transactions in gold and silver are possible in all cities under the administration of the new Chinese authorities. The present dispensation in China under the tenuous control of the Nanking and Canton regime is that bullion trade is free, that imports are legal provided that an import duty is paid, that the Central Bank of China may buy gold abroad and sell it on the open market, that silver bullion trade is free, that silver coins are legal tender and that the Central Bank can mint and circulate silver coins.

The public has recently followed local Court reports of gold seizures with more indignation than at any time before. Many cases have come up before Magistrates when ornamental gold (rings, bracelets, necklaces, chains etc.) and gold coins (such as US dollar coins) have been declared forfeited as travellers were caught entering or leaving the Colony with these articles. The carrying of gold in and out of the Colony, without special permission, is an offence irrespective of the form in which it is carried on the person or in the luggage. Thus even personal jewellery made of gold is liable to seizure. Usually casual travellers are caught and small quantities of ornamental gold such as rings, chains etc. are taken from them. The majority of "offenders" in recent weeks have been women. In a few cases gold has been returned when, for example, the apprehended traveller later identified himself as in the service of the Chinese Government or its armed forces.

The seizures amount in the aggregate to a pitifully small quantity but the majority of the travellers, being deprived of their belongings by such official action, strongly resent the loss of their gold articles which very often represent the only value they possess for the continuation of their travel and a short stay in Hongkong, China or elsewhere. The professional bullion smugglers are not interfered with; their ways are safe and the very few seizures made throughout 1948 were the result of disunity among a gang and subsequent reporting to the police or revenue officers, and there were also one or two successful informants who betrayed the confidence of a gold transportation set-up to get the reward promised by the authorities. Those who suffered were small traders, women and travellers many of whom were apprehended here in full ignorance of the local law.

Now when the Chinese authorities have legalised gold trading inside China it is high time that the gold seizures in Hongkong be suspended without further delay; the community is most adversely discussing the procedure and intention of the gold confiscations by Hongkong Revenue officers. Scandals are intimated and bad feeling has been aroused. There is no purpose in harming the merchants and travellers any more when complete freedom of the bullion business has been re-established in China—and these confiscation regulations were supposedly introduced here only to assist the Nanking authorities in stabilising the national currency of China. For the sake of the much vaunted co-operation with the Nanking and Canton authorities the inward and outward movement of gold, especially in form of ornamental articles and coins, should no longer be interfered with in the Colony.

Hongkong also boasts much of its entrepot business and the unrivalled facilities at the beck and call of traders. In the case of the greatly developing barter trade with especially North China, Manchuria and North Korea the local enforcement of the gold import and export regulations prove a serious handicap to the continuation of these commercial relations. Many local importers when shipping commodities to the North are offered, in lieu of China and Korea produce, gold and silver in bars and coins. However, regular trading firms do not want to break the Hongkong regulations by returning with bullion, and otherwise they risk, if their bullion is entrusted to non-reliable "transportation" outfits, seizure in Hongkong. Recently official searchers have boarded a ship upon its return from Korea after one of its usual barter voyages and detained this vessel for 2 days, looking for gold which they were tipped off as having been concealed somewhere in the holds, but eventually the search party had to

withdraw with nothing but long noses. The owners of the cargo vessel lost 2 days and are now pressing, with good justification, that the local authority refund them the amount which they claim for the virtual impounding of the ship.

Such high-handed actions do not encourage the entrepot trade, and the good will which Government here has been able to build up in the commercial community may easily be compromised by the over-zealous enforcement of the prohibition on gold movements in and out of the Colony. A considerable amount of present and future barter business with the North depends on a squaring of accounts in gold (to a smaller extent also silver) and if local exporters cannot bring into Hongkong the bullion which they rightfully obtain in barter for their commodities the expansion of our entrepot business may be most difficult. We are to believe in official statements that Government is anxious to assist traders but the unrealistic and ill-conceived measures enforced as to the movement of bullion contradicts such belief.

• • • • •

US\$ Market

Quotations fluctuated in line with gold market ups and downs; gold importers were active buyers which were met by inward remittances from overseas Chinese. Next week's offerings from this source are expected in larger volume (Easter season). Bank notes were in strong demand by Shanghai and Taiwan buyers particularly higher denominations. The open markets in Chinese cities transact large amounts of US notes daily and there is a steady contraction in the commercial and native banks' stocks due to hoarding. Imports from the U.S. directly and via Hongkong replenish these stocks. Native banks here asked for 1% premium for bigger US notes and throughout the week the note rate for 10s and 20s was higher than TT.

Highest & lowest rates last week per US\$ 100:- notes HK\$ 529½ - 520½, DD 524¼-521, TT 526½-523¼, equalising crosses of US\$ 3.039-3.048.

Gold Markets

Demand in China while still very brisk has fallen off against previous weeks. Imports from Europe and America into Macao are on the regular high level. Local market highest & lowest prices per tael: \$ 314½-308¾, crossrates from US\$ 48-49¼.

The Shanghai Gold Exchange has officially started dealing in bars but forward sales are still conducted outside the trading hall. In North China gold trading is permitted and sales are daily reported in the major cities. Many commodity prices are now quoted in terms of ozs or taels of gold, especially those which have markets abroad. Thus gold is returning in China, together with silver, as the only standard of value and generally accepted means of payment.

Trading Reports for the Week:—

Monday, Mar. 21:—Opening and closing rates \$309¾—313¾. On the fictitious forward market the change over favoured buyers at the interest rate of 1 cent per tael per day. Throughout the week, except Tuesday, the change over rates were in favour of buyers. Rates continued to advance on better prices and demands from Canton.

Tuesday, Mar. 22:—Opening and closing 314½-311½. Change over 1 cent (favoured sellers). The opening rate of 314½ was the highest of the week. Heavy deliveries, made by sellers, turned the change over rate in their favour; rates followed easy.

Wednesday, Mar. 23:—Opening and closing 311¾—311½. Change over 1 cent. News that Hongkong Government may lift the ban on the imports of gold threatened those overbought to liquidate.

Thursday, Mar. 24:—Opening and closing 311—310. Change over 2 cents. Continued liquidations by bulls pulled the rates down to 308¾, lowest of the week recorded, but checked by better export demands.

Friday, Mar. 25:—Opening and closing 310¾—309¾. Change over 3 cents. Market was featureless.

Saturday, Mar. 26:—Opening and closing 309¾—311½. Change over 10 cents. Air arrivals in Macao delayed by bad weather, bears have to pay higher change over interest, market ruled steadier.

In the unofficial afternoon market, some business transacted at 311½.

Trading Position:—Cash bars turned over during the week under review, officially 20,400 taels and unofficially 19,900 taels, totalling 40,300 taels. About 12,000 taels changed hands by interest hedging forward operators. 25,000 taels exported and over 3,000 taels for local ornamental consumption.

Imports from Macao during the week estimated at about 22,000 taels. Detailed exports were:—Shanghai 7,000 taels, Canton 10,000, Taiwan 1,000, India 2,500, Bangkok 2,500, and Singapore 2,000 taels.

Silver Market

No change in the market situation has occurred, imports are small, sales few and prices slightly up. Silver in bars between \$4.04 to 4.04½ per tael, per dollar coin (Hongkong and Mexican mints only, Chinese mints unobtainable) \$2.65, per 20 c coins \$2.05 (per 5 pcs).

In January silver imports amounted to 31,340 troy ozs in ingots, 30,000 having come from Malaya and 1,340 from Korea (valued resp. at \$67,500 and \$5,360). Exports in January were 336,804 ozs valued \$1,070,816 (in ingots) and 7,191 ozs valued \$24,449 (in coins), all of which shipped to the U.K.

February exports of silver amounted to 393,528 ozs. in ingots and 79,000 ozs. in coins, all to the U.K. (values resp. \$1,326,400 and \$273,000). Officially recorded imports were only 165,805 ozs. in ingots, viz. 24,571 from Macao and 141,234 ozs. from North Korea (values \$78,100 and \$137,280).

Local exporters of merchandise to Korea as well as to North China often return with silver and gold in full or part payment of their cargo. Due to the unreasonable prohibition by Hongkong Govt. on the import of gold, smuggling is encouraged.

The Central Bank of China in Shanghai sold to the public Mexican and Hongkong dollar coins as the stock of Chinese coins (Yuan Shih-kai and Sun Yat-sen dollars) was getting very low and the new minting did not progress well—obviously the Central Bank having very little silver left. The public however disagreed with the sale of other than Chinese silver coins and demanded a discount as the free market offers around 25% more for Chinese coins. All silver dollars, of Chinese, Mexican or Hongkong mintage, contain approx. the same quantity of fine silver so that no discrimination should be made but the common people go by the antics of the silver market and as Chinese coins command a premium over foreign coins (due to greater demand for Chinese coins in the interior and especially North China and Manchuria) the Central Bank of China is being assailed for its subterfuge.

The Central Bank of China has also come in for severe criticism with regard to the boosting of the rate for the silver dollar which last week was on the free market 5000 yuan while the Central Bank raised it to 7000. Thus the Bank instigated higher free market prices on account of the scarcity of silver stocks which the Bank management wanted to turn over to the public against as high as possible an amount in yuan. Graft in the Nanking Govt. is, of course, also given as a reason for the official racing ahead in yuan depreciation.

Chinese Currency Markets

Hongkong unofficial rates, highest & lowest, per yuan 100,000:—notes \$55-30, TT Shanghai \$44.4-35.4, TT Canton \$52.4-28.1/2. During one week depreciation of the yuan amounted to 45%.

Shanghai free market rates highest & lowest, in yuan:—gold per oz. 684,000-539,000, US notes 13,700-10,700, TT Hongkong 2800-2000. Gold crosses from 50 to 51, HK\$ crosses from 510/535. Exchange Clearance Certificate rate per US\$1 from yuan 9,800 to 11,900, official Central Bank rate still lower than Clearance rate.

Demand for free exchange is high while exporters' clearance certificates fetch increasingly less relative to the free rates. Cheques and bank orders have become the more common "popular legal tender" in Shanghai and in most commercial centres of the country south of the Yangtze. All kinds of bits of papers are circulating instead of the Central Bank's "legal tender." Day-to-day interest has fluctuated between 12 to 25%, weekly rates are usually not quoted and monthly rates are never given. The interest rates for loans is moving in accordance with the constant depreciation of the "gold" yuan. Last week's price for one US\$ was CN\$164.4 billion against prewar (1937) CN\$3.33.

Bank of Taiwan yen appreciated again to 4 "gold" yuan (in August last year the rate was fixed at 1,835 "gold" yuan); unofficially only 2 1/2 Central Bank yuan bought one Taiwan yen.

In Canton's free market one HK\$ sold from yuan 1700 to 3150 while TT Hongkong last week quoted high and low 3510 and 1914 yuan.

The printing of yuan notes is fast and continuous but cannot keep pace with the depreciation which is promoted by the Government itself. Cost of banknote paper and production exceed the value of commodities which can be obtained against this sort of "legal tender" and therefore ever higher denominations come off the presses. Yuan 1,000 notes are issued in large numbers and 10,000 yuan notes are prepared for delivery by the presses of China and Hongkong. Forgers could easily compete with the authorised bank note printers but their cost of labour and materials would never balance the purchasing value of the "gold" yuan.

Chinese government banks are supplying the local market with "gold" yuan but demand for these notes is insignificant.

People's Bank of China notes appreciated much in terms of "gold" yuan, rates last week quoted in Shanghai per one People's Bank dollar were from 16 1/2 to 30 Central Bank yuan. Remittances between Chinese places north and south of the Yangtze continue rather smoothly. (The official conversion rate of the People's Bank was in Tientsin and Peiping 10 "gold" yuan. The conversion terminated last February 22 since which time the Central Bank yuan has further depreciated, on the black markets of Tientsin and Peiping, by about 200%).

Bank Note Rates

Highest & lowest rates last week (per one pound and one Canadian dollar, and per 100 of other currencies):—

	HK\$	HK\$
English pound	15.35	15.25
Austral. pound	12.95	12.70
Canadian \$	4.66	4.60
Indian rupee	113.25	112.00
Burmese rupee	71.25	70.00
Ceylon rupee	100.00	100.00
Malayan \$	180.75	180.10
Manila peso	258.50	254.00
Piastre	10.27 1/2	9.97 1/2
Baht	24.30	24.00
Nica guilder	33.00	32.60

Insurance Business in Hongkong

In conjunction with its activities as an entrepot and banking centre, Hongkong provides extensive insurance facilities of all types, and during 1948 factors that maintained the trade of the Colony were responsible for a very active insurance position. Increased values of insurable property, the establishment of new industries in the Colony, abnormal building activity, and the expansion of automobile sales all combined to provide a larger insurance market than the Colony has known in the past. In addition there was during the year a very heavy storage of merchandise in dock warehouses and public godowns which, at one or two times during the year, reached such proportions that it taxed the capacity of the market to its limits.

During the year occurred the largest fire from the point of view of value in the history of the Colony, which was combined with a heavy loss of life. This took place at the Wing On Company's godown at West Point and the insured value of goods involved in the fire amounted to over \$23,000,000, in addition to which there were large uninsured interests. This loss hit the market very hard. A Commission was appointed by the Governor to enquire into the cause and responsibility for the fire and as a result responsibility was distributed among several persons concerned directly or indirectly with the operation of the destroyed premises and a number of recommendations were put forward which, if carried out, should lessen considerably the possibility of a recurrence of such a disaster. Another large fire destroyed two of the Hongkong and Kowloon Wharf and

HONGKONG UNOFFICIAL EXCHANGE RATES

(In H.K. dollars)

February	Gold		Silver	Per One Hundred Thousand				Chinese Yuan		U.S. Dollar			
	per tael	Low		Notes	Low	T.T. Shanghai	Low	T.T. Canton	Low	Note	Draft	T.T. New York	Low
	High	Low	per tael	High	Low	High	Low	High	Low			High	Low
March													
21	313¾	309¾	4.04	55	40	44	42¾	52¼	50½	5.20	5.23	5.25¾	5.24¾
22	314½	311¼	4.04	51	36	44¾	41¾	46½	43½	5.24	5.22	5.26½	5.25
23	313¾	309½	4.04	43½	35	42¼	40¾	43½	41½	5.25	5.24	5.25¾	5.24
24	311¼	308¾	4.04½	43	34	40½	39	40¼	37¼	5.23	5.22	5.24¼	5.23¼
25	311	309¼	4.04	39	30	38	55¼	31¼	28½	5.27	5.23	5.25	5.24½
26	311¾	309½	4.04½	40½	31	36½	34½	31½	30	5.27	5.23	5.25½	5.24½

Godown Company's ware-houses, and although in this case there was no heavy loss of life goods to the value of \$2,000,000 were destroyed. This fire also was attributed to the same cause.

During 1948 some 2,000 additional motor vehicles were put on the road in Hongkong and although they provided extra income to insurers they contributed substantially to the problems normally inherent in the business. There were some deplorable accidents due, in many cases, to avoidable causes. There is no record of the total number of claims paid, but the current high cost of replacements and repairs will undoubtedly increase the normal claims experienced.

In the fire and automobile markets little variation occurred in rates, but in the marine field high insured values were offset, in the production of premium income, by a reduction in the combined marine surcharge. In the marine market the volume of cargo business was well maintained. Cargoes continued to arrive in the Colony for re-export and Hongkong's growing manufacturing industries made a valuable contribution towards the volume of business written. New vessels have been placed on the river trade and insurance of these hulls has been a welcome addition to the market. There were two fires, occurring on board the river steamers "Hsin Kong So" and "Kwong Tung", the former becoming a total loss and the fire in the latter, although slight, resulting in a heavy loss of life due to panic. Two attempts were made to blow up the Hongkong-Canton river steamer "Kwei Hai" by means of a mine in the Canton River channel and operated from the bank; the second attempt resulted in serious damage to the vessel and some loss of life.

(From the annual report of the Hongkong General Chamber of Commerce)

* * * *

Central Bank of the Philippines

The Philippine Central Bank issued its first statement on January 31, 1949. Monetary circulation totalled pesos 694,556,476, made up of all notes and coins outside the Central Bank and including 21,500,000 estimated to have been lost or destroyed as a result of the war. The latter figure was not included in the circulation statements regularly issued by the National Treasurer prior to the establishment of the Central Bank. The last statement so issued showed circulation on December 31, 1948, at 813,501,310 pesos. The net decrease results from a change in the compilation of the figures and is accounted for principally by the delivery to the Central Bank of the legal reserves, amounting to 169,351,029 pesos of the various commercial banks. Against the January 31st circulation the Central Bank reported a total of 714,969,280 pesos in international reserves, of which 712,200,164 was held in U.S. dollars and the balance in gold and other foreign currencies.

The Central Bank continues to supply dollar exchange at the following rates:

Selling T.T.	201.00 pesos
Selling O/D.	200.95 "

The Central Bank has authorized the following rates within which commercial banks many quote to their clients:

	(in pesos)	
	Selling	Buying
U.S. Dollars T.T., over \$500.00	201.50	200.50
U.S. Dollars Demand over \$500.00	201.375	200.375
U.S. Dollars T.T. and Demand under \$500.00	202.00	200.00

Banks are quoting generally, for prime business, T.T. 201.50 selling, and 200.75 buying.

* * * *

PROPOSED INVESTMENTS IN HONGKONG

It is proposed by a number of companies in Hongkong to invest during three years, 1948-1950, about \$250 million as detailed below. These estimates were obtained by the Hongkong General Chamber of Commerce who inquired last year with their members as to proposed capital expenditure for the import of capital goods from abroad and local expenditure after Government, last April, asked the Chamber to assist in the compilation of estimates for capital investment in the Colony for the next 3 years.

Following is the proposed expenditure on maintenance and development in various types of industry:—

(in thousands of HK\$)

Building:	
New office buildings	40,030
Staff accommodation and apartments	6,380
Gas, Light and Power.	
Maintenance	6,300
Development	19,819
Ferry and Transportation Services.	
Maintenance	3,633
Development	6,595
Telecommunications.	
Maintenance	3,969
Development	4,460
Dockyards and Shipping.	
Dockyard maintenance ...	27,400
Ship repair	40,096
New shipping	1,000
Wharves and Godowns.	
Maintenance	6,470
Development	31,185
Oil Installations.	
Maintenance	3,720
New construction	15,000
Industrial Projects.	
Sugar Refinery	3,270
Brewery	1,535
Aerated Waters	2,000
Cement Works	2,122
Rope Works	241
Rubber Factory	1,300
Printing Works	1,000
Cotton Mills	10,000
Paint Factory	700
Air Maintenance Works ..	200

H.K. Stock & Share Market

Week after week the index declines and there is growing pessimism among the average shareholders about the prospects of the market. The lack of public confidence in the stability of the situation in Hongkong, although not founded on any facts, is dragging share prices further down which now have reached the lowest point in over 3 years.

Many holders are ready to liquidate at considerable loss and they either pull out with their funds to presumably safer shores or they let their money lie idle in bank accounts. There is not sufficient attraction at present, nor are there possible openings, for the employment of funds in new commercial transactions. Also real estate speculation has tapered off as fresh immigration from China has come to a halt and since the beginning of this year there have been even more exits to China. The so-called peril to Shanghai has been grossly exaggerated and the many security seekers have come to find out that Hongkong is a most expensive place, compared to the low cost of living in Shanghai (in terms of foreign exchange), and therefore they have gone home realising under the new regime there will be no deterioration, possibly improvement. What appeared as a real danger was a short period of lawlessness in Shanghai prior to the control passing into the hands of the new authorities but with the dilly-dallying peace parleys and the slow subjection of the Nanking regime to the terms of Feiping, notwithstanding the possible rebellion of Canton and Taipei, the people of Shanghai feel once more reassured of an orderly transfer of power in their city.

Reduced outport capital in Hongkong should further tend to minimise demand and as there are more shareholders anxious to throw their investments on the market depressed conditions must be anticipated. Turnover is becoming insignificant as last week's business proved. Larger sales included:—\$255,000 3½% Govt loan, 67 Hongkong Bank shares, 900 Docks, 4000 Hotels, 1100 Trams, 1500 Electrics, 3600 Lights old, and 4867 Lights new, 1350 Cements, while the following Shanghai "foreign" shares had sales:—12078 Ewos, 5540 Lands, 470 Wheellocks, 900 Gas, 46,500 Asia Navigation.

Rubber plantation shares are listed but hardly any sales, private or at the Exchange, take place.

Announcements of good working results and dividend payments continue as usual.

Volume of Business:

Total sales reported amounted to 92,974 shares of an approximate value of \$1 million, a decrease of \$1 million compared with the preceding week.

Price Index:

The Felix Ellis averages based on the closing prices of twelve active representative local stocks closed at 132.08 for a net loss of 1.17 compared

with the close of the previous week. Day-by-day his averages were: Mar. 21, 133.09; Mar. 22, 133.02; Mar. 23, 132.71; Mar. 24, 132.53; Mar. 25, 132.08:—

	High	Low
1947	155.82	123.88
1948	148.68	134.05
1949	138.37	132.08

Dividends:

The Consulting Committee of the Union Waterboat Co. Ltd., have declared a dividend of \$1 per share and a bonus of \$1 per share, both free of tax.

The General Agents and Consulting Committee of The Canton Insurance Office, Ltd., have declared a dividend of \$14 per share, free of tax.

Business Done:

H.K. Govt. Loans: H.K. Govt. 3½% @ 102½.

Banks: H.K. Banks @ 1710, 1720, 1725; (London Reg.) @ £104½.

Insurance: Unions @ 705.

Shipping: U. Waterboats @ 32½; Asia Nav. @ 80 cts.

Docks & Godowns: H.K. & K. Wharves Old @ 132 and New @ 128; H.K. Docks @ 25; Wheelocks @ 30.

Hotels & Lands: H.K. Hotels @ 13, 12.80, 12½; Lands @ 56¼, 55½; S'hai Lands @ 2¾, 2.70; Humphreys @ 12½; H.K. Realities @ 2.

Utilities: H.K. Tramways @ 18; China Lights Old @ 14, 13.70 and New @ 10, 9.90, 9.70, 9.40; H.K. Electrics @ 34¼, 34½, 34, 33; Macao Electrics @ 27, 26½; Telephones @ 30; Shanghai Gas @ 4.

Industrials: Cements @ 32; Watsons @ 50, 49.

Stores: China Emporium @ 11¼; Wing On @ 106.

Miscellaneous: China Entertainments @ 43½.

Cottons: Ewos @ 8, 7.70, 7.60, 7½, 7.60, 7.30.

THE HONGKONG AND KOWLOON WHARF AND GODOWN COMPANY, LIMITED

(INCORPORATED IN HONGKONG)

Notice To Shareholders

Ordinary Yearly Meeting

Notice is hereby given that the Fifty-eighth Ordinary Yearly Meeting of the Members of the Company will be held at the office of Messrs Jardine Matheson & Company Limited, Pedder Street, Hong Kong, on Monday, the 11th day of April, 1949, at Noon, to transact the following business:—

1. To receive and consider the Report of the Directors and the Statement of Accounts for the year ended 31st December, 1948.
2. To sanction a dividend in respect of the year 1948.
3. To elect two Directors.
4. To appoint Auditors.

Closing of Transfer Books

Notice is also given that the Transfer Books and Register of Members will be closed from the 28th March, 1949 to the 11th April, 1949, both days inclusive.

By Order of the Board of Directors.

G. B. S. THOMSON,
Secretary.

Hong Kong, 21st March, 1949.

Hongkong Shipping & Aviation in 1948

Conditions of Shipping

Since the War the relative importance of Hongkong to owners of ships under all flags except the Chinese has increased by reason of the unsettled conditions in China and the political restrictions on the trade of that country. There has been a tendency for shipping companies to move their principal offices from Shanghai to Hongkong, and the entrepot trade of the Colony has increased; the latter applies particularly to import cargoes, of which substantial quantities have been brought to Hongkong to await import licences and the completion of other formalities required for eventual importation into China. Apart from this, the trade of China itself, which is bound to affect the prosperity of all shipping in these waters, has been at a uniformly low level and Hongkong owners and agents of ships have had to pay more attention to other neighbouring countries.

At the end of October 1948, ship-owners were reminded that they would eventually have to face Japanese competition: SCAP was calling for bids from commercial firms who wished to undertake the agency of Japanese ships in Hongkong, Singapore and other ports. The agency services required were principally husbandry, and canvassing or booking cargo were excluded, but it is apparent that Japanese shipping is to be used to an increasing extent for Japan's trade with foreign countries.

Ocean Shipping: 1948 has seen a great improvement in the quality of ocean tonnage serving Hongkong, and the indications are that this tendency will continue in 1949 provided the volume of trade is sufficient to support the new ships. This improvement is primarily the result of the optimism of owners who made their plans at the end of the war and immediately afterwards for replacing war losses with first class tonnage, and their hopes have to a great extent been justified by the cargoes offering in these waters. Hongkong's own imports have increased—although obviously to a very much smaller extent than Chinese imports have decreased—in comparison with before the war, but local seasonal exports of South China products, such as Canes and Ginger, have been surprisingly good in spite of banditry and unrest up-country. There has also been a quite substantial movement of cargo from Japan to the United Kingdom, mainly unfinished textiles for processing in Lancashire, and this has assisted in providing cargo for ocean tonnage serving Hongkong.

Local Shipping: The Chinese Government made no change in their laws which exclude foreign shipping from cabotage on the China Coast and from proceeding up the Yangtze River beyond Woosung. Locally based shipping has therefore had to turn its attention to trades between Hongkong, Japan, Korea, China and the South Seas. The trades of China itself were at a low ebb

and the Hongkong/China trades were therefore unable to support more than a very small amount of shipping. Korea, both North and South, assumed importance in the course of the year, and a certain amount of North China produce from Communist territory found its way to Hongkong via South Korea. Japan took quite substantial quantities of export cargo from Hongkong—most of which had its origin in China—at the beginning of the year, but this trade fell off after the Spring. This falling off was aggravated by a decline in the trade with Siam and Malaya, and something of a slump developed in the Summer which persisted till the end of the year. French Indochina continued commercially dead and contributed very little cargo.

River Shipping: Both the Canton River trade and the Macao trade were over-tonnaged with a variety of craft of all descriptions and standards, for which the cargo and passengers moving were insufficient to provide economical employment. An attempt was made in the Spring to form a shipping companies' Conference with the object of maintaining freight and passenger rates, but the Association was not successful and the upward section disbanded towards the end of the year, although the downward section continued to exist in name.

Dredging on the Taimei crossing of the Canton River was abandoned in mid-summer when it was decided to concentrate on clearing the stone barrier in the Elliot passage. This passage was due to be ready for traffic at the end of the year when it was hoped that ships drawing up to fifteen feet would be able to reach Canton at all states of the tide. (A hope which later proved vain).

After the early part of the year, no terrorist attempts were made on shipping but the prevention of smuggling remained a major problem for reputable ship-owners, and can be expected to continue to be so as long as the Chinese regulations prohibit the import of a large number of types of goods much in demand.

The West River continued to be served by junks and other small craft but trade was subject to constant depredations by bandits.

Hongkong Port: The Marine Department have continued strenuous efforts to complete the restoration of pre-war facilities and to bring the Port right up to date in aids to navigation. Notable developments during the year include the establishment of Blackhead Light as an aid to vessels entering the harbour by the Eastern entrance, and the introduction of a red sector for Cape Collinson light to cover Bokhara and Tathong Rocks. Continued progress has been made with the clearing of wrecks from the harbour so that now there are no large obstructions to the main fairways. Two oversize heavy commercial moorings have been laid for the use

of large vessels under typhoon weather conditions, and a quarantine anchorage has been established in Kowloon Bay to save large vessels from the necessity to traverse the whole length of the harbour. The establishment of a radio direction finder Calibration range in the West Lamma Channel early in 1949 will undoubtedly prove a major benefit to ships so equipped, and the installation of a radio telephone between the Marine Office and Waglan Light House has already proved to be of considerable help to owners and agents in receiving early reports of vessels arriving. Another notable and welcome development during the year has been the provision of office accommodation at the Marine Department for the Port Health Officer and his staff so that now all official ship's business can be transacted at one centre.

Docks and Warehouses

The three principal Dockyards in the Colony are W. S. Bailey Co. Hongkong & Whampoa Dock Co. Taikoo Dockyard & Engineering Co. During 1948 the three Companies have made steady progress with the rehabilitation of their yards and it is anticipated that by the end of 1949 all will be up to their pro-war capacity for handling repair and construction work. The chief pre-occupation of the Dockyards during 1948 has been the shortage of steel for undertaking new building. The Companies have not yet been able to obtain sufficient assurances of supplies of steel to quote for new construction and the effects of this have been that repair costs have remained high as, when shipyards are working only on repair work, there is a constant fluctuation in the numbers employed and Yard Managers are unable to effect those economies of labour which are possible when there is a considerable labour force working on new construction. Work on reconversion of ships from war to peacetime functions finished during 1947, but there have remained for 1948 some valuable contracts in the conversion of ships from coal to oil-burning. During the year, in addition to large numbers of ships repaired in the harbour, a total of 755 vessels amounting to 1,208,000 gross tons have been docked at the various yards. One of the largest jobs under way at the present time is the repair of the ex-Japanese tanker "Kurosio Maru" which is now being re-conditioned for the China Tanker Company by the Hongkong and Whampoa Docks. Over 1,000 tons of new or re-fitted steel are having to be worked over the whole of the ship and the repair virtually amounts to a re-building as the vessel had been torpedoed and sunk.

Many shipping operators have commented that Hongkong is still one of the most efficient ports in the world and therefore one of the most economical because of the rapid turn-arounds which are achieved. There can be no doubt that this good reputation is in large measure due to the efficient operation

of the wharf and godown facilities of the port. The four principal companies concerned are the China Provident Loan & Mortgage Co. Holt's Wharf; Hong Kong & Kowloon Wharf & Godown Co. and Wang Kee & Co. In common with the Dockyards, these companies suffered extensive damage during the Japanese occupation. Rehabilitation has proceeded steadily since 1945 and the companies have now reached the position when they can proceed with their development projects, many of which were in contemplation before the war but had to be held over pending restoration of the old facilities.

During 1948, cargoes from upwards of 1,000 ships have been handled, the approximate total being more than 2½ million tons, and although there was a period during the middle of the year when cargoes diverted from Shanghai and elsewhere in China threatened to outrun storage space, the prolonged shipping strike on the West Coast of America allowed space to become available again so that since then there has been a steady turn-over of stocks held.

Some alarm was felt at the occurrence of several serious fires during the year but the recommendations of the Wing On Fire Commission should, if adopted, go a long way towards obviating the possibility of further disastrous outbreaks.

On the development side, the most noteworthy step forwards was the formation of the new company known as North Point Wharves, Ltd., to operate under the management of The China Provident Loan & Mortgage Co. This new company was started to purchase and develop a 290,000 square feet property at North Point. Plans include a sea front wharf of 1223 linear feet with 30 feet of water at all states of the tide, thus providing the Island with its first full scale ocean-liner wharf facilities. Other development projects proceeding during the year include a new wharf, to be completed during 1949, for the Hongkong & Kowloon Wharf & Godown Company, and a new pier and godowns for the China Provident Loan & Mortgage Company at West Point.

Civil Aviation

On April 27, 1948, it was announced in Hongkong that interest-free loans of up to \$3,000,000 would be made by His Majesty's Government for the new airport. It is expected that surveys and constructional work will begin during 1949. Meanwhile the improvements to the existing Civil Airport and seaplane anchorage at Kaitak have continued. Extensions have been made to the Terminal Building, thus improving the passenger handling situation generally, and the customs facilities in particular. The Flying Control, Area Control Centre and Meteorological staffs have been centralised in one building, giving the airport what is probably one of the most efficient services of this nature in the Far East. Jardine Aircraft Maintenance Co. have constructed one large hangar and three modern workshops,

while Pacific Air Maintenance & Supply Co. have erected five workshops, and their hangar is now under construction. Permanent night flying flare paths commenced operation. The aircraft catering is now operated from the Terminal Building.

(Extracts from the annual report of the Hongkong General Chamber of Commerce.)

SHIPBUILDING IN HONGKONG

Besides the two large dockyards of the Colony which are well equipped to build modern ocean going ships—Taikoo having launched before the war two 10,000 tonners—there are several medium sized Chinese owned and operated yards in Hongkong which are doing most creditable work. Good progress has been made by these Chinese dockyards in spite of temporary shortage of steel and the relatively high cost of labour and materials, especially timber. Many overseas shipowners have placed orders here for the repair and overhaul of motor junks, river cargo boats, yachts.

The Ah King slipway and the Wing Hing Cheong yard, while at present not yet in a position to resume building, have good business on hand for miscellaneous repairs. But the Wing On Shing Shipbuilding yard (at Cheungshawan) are at present constructing a 1,000 gross ton river steamer which is expected to be launched in about 3 months. The ship under construction (engineer in charge Mr. Chu Hong) is the motor vessel Tai Loy of 198 ft length, 36 ft beam, 12 ft depth, a displacement of 700 tons, equipped with 3 English Diesel engines of 600 h.p., top speed 15 knots, cruising speed 12. Cost of construction is approx. \$5 million. The mv. Tai Loy will be equipped here with radar navigation aids, air-conditioning and probably a small theatre saloon. Passenger accommodation is estimated at 1,000 as the vessel is intended to be used on the Hongkong-Macao run. The shipbuilders have been able to push work so that construction time may only be 9 months. The order was placed by the Fook Hing S.N.Co. of Macao who supplied the design for this steel river motor ship (Mr. T.K. Ching having drafted the design). The owner of the Macao company is Mr. Fu Tak-yam, who is famous as the "gambling king" and the leading native banker in the Portuguese Colony, being also largely in control of the gold import business in Macao. Mr. Fu is at present also constructing in Macao a modern wharf (in the porto interior) which is nearing completion. The wharf, at the head of the Avenida (main street), is in every respect a fine structure of which Macao can justly be proud. When the new m.v. Tai Loy will start on its regular run patronage is assured despite the over-tonnage now employed on the Hongkong-Macao route.

THE "MISS ORIENT" DISASTER

The terrible accident on the Pearl River to the "luxury" steamer Miss Orient, running between Hongkong and Canton, when 27 people were reported as dead or missing after the vessel sank upon hitting what is believed to be a mine, draws attention to the need for better protection of river shipping by the Canton port authorities. In the days before World War II, when specially constructed small British gunboats patrolled the Yangtze and Pearl rivers, and other ships of the British navy kept the seas free from piracy, merchants were sure not only of protection, no matter what flag they sailed under, but also of quick assistance if they got into difficulties. Alas! those days have changed since the war ended and China, saved from the Japanese invader by the efforts of British and American troops not only closed her rivers to foreign shipping but also deprived shipowners of the protection to which their ships are entitled when on their lawful occasions.

On April 5 begins one of the great festivals of China, the ch'ing ming or Spring festival, when people from all over the country make pilgrimages to their family graves in order to pay their respects to their ancestors. It is inevitable that with this great exodus to and from north, south, east and west, a vast number of pilgrims will be going by river and sea, and it is therefore understandable that shipowners are anxious about the safety of their passengers and are asking the Chinese navy and the Canton water police to send out patrol gunboats to protect ships on that run. It is particularly noticeable that when the accident to the Miss Orient occurred at night on March 24, only six miles away from Canton, no help was available until early the next morning, passing junks being afraid to go to the rescue of the struggling people for fear of being attacked from the shore. That out of 293 passengers and crew 264 were rescued, either by their own efforts or when help finally arrived, has reduced the loss to comparatively small proportions compared with other tragedies that have taken place; but nevertheless it serves to emphasise the lack of sufficient control over one of the great waterways of China.

North Point Wharves

The North Point Wharves and Godown Co. are now completing on Hongkong Island four godowns of one storey each with an aggregate floor space of 57,000 square feet and an adjoining open storage space of 23,400 s.f. These godowns will be ready for use in early May. Of these godowns two are built of brick and concrete, and 2 are made out of a Navy hangar. The godown building program provides for another 4 godowns, 2 of which will be of 5 storeys each, and 2 others will measure 120 x 90 ft. each. The North Point Wharves, operated by the China Provident Loan & Mortgage Co., have dredged the sea in front of the wharves to ensure the

berthing of ocean steamers of any size as the depth at low tide is now 30 ft. The sea front measures 1,223 ft. which should suffice for simultaneous berthing of 3 coastal ships.

Total investment in the wharf and godowns is estimated at \$11 million, of which 8½ m. are to go into the cost of land and construction of wharf walls; equipment and machinery are estimated to cost ½ m. This equipment includes two motors with trailers, fork-lift trucks, gravity rollers, cranes (the biggest weighing 80 tons, capable of lifting 20 tons) etc.

Exports from Hongkong to U.S.

Declared exports of drugs, herbs, leaves, and roots from Hongkong to the United States during the first 11 months of 1948 included the following items (all values in U.S.\$):—Psyllium husks, 166,995 pounds, valued at \$10,170; senna, 98,560 pounds, \$18,283; ginseng, 29 pounds, \$6,636; rhubarb, 16,324 pounds, \$5,443; sandalwood, 213 pounds, \$357; galangal root, 130,116 pounds, \$3,864.

Gum benzoin exports during the first 11 months of 1948 amounted to 2,003 pounds, valued at \$3,861.

Exports of perfume materials to the United States during the same period consisted of the following items: Geraniol, 360 pounds, \$594; musk, 162 pounds, \$19,876; saffrol, 2,540 pounds, \$668; and flower water, 63 pounds, \$107.

Exports of essential oils to the United States during the first 11 months of 1948 included the following items: Cassia, 77,500 pounds, valued at \$104,570; citronella, 45,277 pounds, \$48,115; aniseed, 248,250 pounds, \$158,597; ho, 5,036 pounds, \$6,612; and camphor, 86,107 pounds, \$22,589.

Shanghai Exports

Exports from Shanghai for the week ending March 5 amounted to US\$1,661,921, including commodities under Government control.

Bristles	US\$ 119,730
Woodoil	80,000
Furs & Skins	155,326
Tea	48,380
Straw Hats	26,021
Hog Casings	4,756
Feathers	80,934
Metals & Metallic Products	66,411
Woolen & Silk Yarns ...	35,568
Fresh & Preserved Eggs	104,254
Cotton Manufactures ...	122,548
Wool & Woolen Products	28,722
Silk Manufactures	63,855
Vegetable & Vegetable Products	31,828
Sundries	215,397
Total of free exports ...	US\$1,183,737
Cotton Piece Goods	US\$ 233,959
Cotton Yarn	244,224
Total of State exports ...	US\$ 478,183
Grand Total	US\$1,661,921

During the period under review there were no exports of vegetable oils, frozen eggs, mineral products or sugar. Total exports showed a decrease of over US\$1,000,000 against the previous week.

FOREIGN INVESTMENTS IN JAPAN

It was stated by SCAP that foreign investments are permitted "to assist in and promote the rapid rehabilitation of the Japanese economy to the end of ensuring self-support and national independence, to protect the Japanese people and economy in the conservation of their national resources during a period of military occupation, and to stimulate the restoration of sound international peacetime economic relationships as between Japan and the rest of the world." A Foreign Investment Board has been established to validate, for SCAP, proposals and agreements for the conduct of foreign business and investment activity. The following 10 points are listed as the minimum standards:

1. An application for investment or the acquisition of property must demonstrate that it is necessary, (a) for the present business activities for a person who has been in Japan since September 2, 1945, (b) to resume a specific prewar activity in the case of those with legitimate restitution claims, or (c) to carry on a new activity which will improve Japan's foreign-trade position or aid its economic rehabilitation.

2. An application must demonstrate that alternative means, such as a short-term lease or rental, bond purchase, expansion of non-Japanese enterprises, or an acquisition from a non-Japanese are not practicable.

3. If yen are being used for investment, the applicant must show that they were legally acquired.

4. The application must show that the property or right will be used to "add constructively to the Japanese economy."

5. Acquisition will not be validated where there is reasonable ground for belief that it is being acquired on behalf of a foreign government.

6. If property is likely to be designated for reparations, removals, or subject to dissolution or reorganisation under current programs, its acquisition will not be permitted.

7. The terms of any contract must be fair to the Japanese.

8. Investment in existing Japanese enterprises may be made only if it "creates additional assets for the Japanese enterprise in contradistinction to the purchase of stocks or securities from other investors."

9. Validation is provided automatically for persons receiving yen in lieu of their pre-war properties if they use no more than the yen received and if the properties are of a similar nature to those formerly owned by them.

10. If there are reasonable grounds for suspecting fraud, duress, or undue influence, transactions will not be validated.

Hongkong's Trade for Feb. & for the Two Months of 1949

The good start made in January this year was continued in February imports which showed a gain of \$2.2 million or 1.4 per cent. over the previous month; on the other hand, exports were down by \$36.4 m. or 21 per cent. Compared with February 1948, imports were up by 23 per cent. and exports by 46.9 per cent. a comparison with the monthly average for 1948 (imports \$173.1 m., exports \$131.8 m.) shows that imports for February were down by 6.7 per cent., whereas exports improved by 2.7 per cent.

Total trade for February showed a drop of \$34.2 m. or 10.3 per cent. against the total figures for January, but a gain of \$73.5 m. or 32.9 per cent. against those for February 1948.

Trade by Countries

Hongkong's dealings with China, in spite of the civil war and the difficulty of carrying on trade, showed an increase of \$8.5 m. in imports during the month of February, as compared with February last year, and of \$11.7 in exports into China. The greater part of these increased imports and exports came from and went into South China, imports being up by \$7.2 m. and exports by \$5.3 m. Imports from North China rose by \$901,541, while exports rose by \$4.5 m.; imports from Middle China were up by \$405,638, and exports by \$1.9 m.

North Korean trade also showed important gains, imports amounting to \$1.1 m., and exports to that country totalling \$9 m., as against nothing in February 1948. Imports from South Korea were up by \$3.8 m., and exports by \$2.3 m. Japan's imports into Hongkong rose by \$4.4 m., while exports to that country were up by \$2.7 m. Imports from Macao increased by \$4.6 m. and exports by \$2.8 m.

From the United Kingdom imports were up by \$4.9 m., and exports from Hongkong rose by \$3.9 m. Imports from the United States increased by \$14.9 m., but exports to that country fell by \$4.8 m.

Commodity Gains and Losses

With regard to imported commodities, the following showed the main increases: heating and lighting products (a gain of \$10.9 million), textile fabrics (\$5.4 m.), crude or simply prepared products (\$4.3 m.), other manufactured articles (\$3.3 m.), dairy products (\$2.7 m.), machinery and appliances other than electrical (\$2.5 m.) manufactures of base metals (2 m.), non-metallic minerals (\$1.9 m.), raw or simply prepared textile materials (\$1.9 m.). The principal drops in imports were in sugar and confectionery (\$5.7 m.), and dyeing and tanning substances (\$5.9 m.).

ARTICLES	IMPORTS		EXPORTS	
	1948 \$	1949 \$	1948 \$	1949 \$
Live animals, chiefly for food	1,728,473	1,664,732	2,120	—
Meat and preparations thereof	173,447	343,234	1,325,588	662,061
Dairy products, eggs and honey	1,999,349	4,711,248	1,877,853	2,281,439
Fishery products, for food	2,746,536	3,896,693	998,431	1,288,440
Cereals	5,724,061	4,451,540	192,226	130,696
Manufactured products of cereals, chiefly for human food	3,296,872	4,533,382	873,141	2,144,459
Fruits and nuts, except oil-nuts	1,853,043	2,685,100	1,303,747	1,926,038
Vegetables, roots and tubers, chiefly used for human food & their preparations, n.e.s.	3,415,060	4,138,118	5,666,607	3,283,14*
Sugar and sugar confectionery	6,609,842	894,558	369,075	438,239
Coffee, tea, cocoa and preparations thereof, spices	1,386,315	1,459,675	923,098	1,134,627
Beverages and vinegars	623,061	938,094	447,934	866,661
Feeding stuffs for animals, n.e.s.	4,510	30,504	5,040	16,526
Tobacco	3,971,080	3,306,094	1,954,808	1,713,084
Oil-seeds, nuts kernels	1,148,529	458,719	385,044	1,305,656
Animal and vegetable oils, fats, manufactures, n.e.s.	10,052,374	8,487,726	12,441,628	9,786,329
Chemical elements and compounds; pharmaceutical products	6,994,343	7,515,660	2,771,619	6,102,636
Dyeing, tanning and colouring substances (not including crude materials)	9,722,979	3,770,030	2,215,966	5,199,381
Essential oils, perfumery cosmetics, soaps and related products	518,013	1,629,962	986,542	869,912
Fertilizers	803,872	448,499	316,049	437,541
Rubber and manufactures	1,185,534	2,128,792	619,975	3,605,687
Wood, cork and manufactures	2,813,914	3,516,522	468,707	690,396
Pulp, paper and cardboard	4,800,656	4,107,479	2,659,691	7,343,070
Hides and skins and leather	1,068,526	1,686,734	1,195,311	1,246,286
Manufactures of leather	75,994	44,017	185,097	393,243
Furs, made up	17,394	629,680	28,400	631,980
Textile materials, raw or simply prepared	628,052	2,606,705	2,221,563	5,181,695
Yarns and thread	8,471,815	6,826,938	4,500,069	11,006,163
Textile fabrics	9,158,552	14,562,913	12,941,103	14,105,478
Special and technical textile articles	522,009	502,819	148,612	516,371
Clothing and underwear of textile materials; hats of all materials	1,260,443	1,072,261	3,438,153	4,824,397
Clothing of leather and fur	31,320	4,300	40	—
Footwear, boots, shoes and slippers	137,453	150,864	1,247,142	941,046
Made-up articles of textile materials other than clothing	845,402	1,997,861	810,321	3,993,993
Products for heating, lighting and power, lubricants and related products	6,125,936	17,025,531	6,120,476	6,160,642
Non-metallic minerals, crude or simply prepared, n.e.s.	1,502,037	3,471,093	153,573	991,735
Pottery and other clay products	826,264	1,009,115	528,668	754,943
Glass and glassware	393,991	652,002	379,944	553,506
Manufactures and non-metallic minerals, n.e.s.	381,237	274,631	58,931	211,013
Precious metals and precious stones, pearls and articles made of these materials	360,690	925,645	347,769	317,750
Ores, slag, cinder	2,920,631	4,332,700	492,939	1,924,130
Iron and steel	3,937,442	4,693,691	1,262,108	2,809,013
Non-ferrous base metals	3,781,517	4,501,659	1,468,766	2,598,708
Manufactures of base metals	2,982,264	5,049,722	4,144,028	8,615,638
Machinery, apparatus and appliances, n.e.s., other than electrical	1,927,165	4,561,393	338,300	935,334
Electrical machinery, apparatus and appliances	1,902,200	2,032,958	937,884	1,448,456
Vehicles and transport equipment, n.e.s.	2,886,410	2,639,321	652,303	2,209,371
Miscellaneous crude or simply prepared products, n.e.s.	2,254,103	6,642,472	3,806,126	6,207,047
Manufactured articles, n.e.s.	5,376,199	8,531,601	5,655,873	5,839,291
Gold and specie	—	215,380	9,000	1,600,800
Total	131,243,462	161,810,467	92,294,353	137,964,353

HONGKONG IMPORTS & EXPORTS OF MERCHANDISE FOR THE FIRST TWO MONTHS OF
1947, 1948 AND 1949
(in thousands of Hongkong dollars)

Month	— 1947 —				— 1948 —				— 1949 —			
	Imports	Exports	Import excess	Import excess %	Imports	Exports	Import excess	Import excess %	Imports	Exports	Export excess	Export excess %
Jan.	105,406	102,591	2,815	2.74	140,755	113,316	27,439	24.21	159,336	171,811	12,475	7.83
											Import excess	Import excess %
Feb.	82,557	70,993	11,564	16.29	131,243	92,286	38,957	41.13	161,595	135,454	26,141	19.30
	187,963	173,584	14,379	8.28	271,998	205,602	66,396	32.29	320,931	307,265	13,666	4.44

Imports for the first two months of 1949 were higher than in 1947 by 70.74 %, and higher than in 1948 by 17.99 %.

Exports for the first two months of 1949 were higher than in 1947 by 77.01 %, and higher than in 1948 by 49.44 %.

The import excess for January and February 1949 compared with the import excesses of the same period of 1947 and 1948 was lower by respectively 46.33 % and 86.24 %.

Monthly averages for 1947: imports \$129,161; exports \$101,402; import excess 27,758 (27.37 %).

Monthly averages for 1948: imports \$173,128; exports \$131,895; import excess 41,233 (31.26 %).

In exports, the chief gains were in the following: yarns and thread (\$6.5 m.), pulp, paper, etc. (\$4.7 m.), manufactures of base metals (\$4.5 m.), made-up textile articles other than clothing (\$3.9 m.), chemical and pharmaceutical products (\$3.3 m.), dyeing and tanning substances (\$2.9 m.), rubber manufactures (\$2.9 m.), raw textile materials (\$2.9 m.), miscellaneous crude products (\$2.4 m.). The main falls in exports took place in oils and fats (\$2.6 m.), and vegetables (\$2.3 m.).

Import and Export Figures

According to figures supplied by the Department of Commerce and Industry, imports of merchandise into the Colony during February amounted to a declared value of \$161,595,087 as compared with \$131,243,468 in February 1948. The figures include Government sponsored cargoes. Exports of merchandise totalled a declared value of \$135,454,353 as compared with \$92,285,353 in February last year.

Total imports during the first two months of 1949 amounted to a declared value of \$320,931,069 compared with \$270,998,575 in the first two months of 1948. Total exports for the two months were \$307,265,742 compared with \$205,601,745.

The total trade of the Colony for February 1949 amounted to a declared value of \$297,049,440 compared with \$223,528,821 for Feb. 1948. The total trade figures for the first two months of this year are \$628,196,811 compared with \$476,600,320 for 1948, the same period.

TRADE IN FEBRUARY BY COUNTRIES

COUNTRIES	IMPORTS		EXPORTS	
	1948	1949	1948	1949
United Kingdom	19,837,370	24,823,407	5,582,335	9,540,991
Australia	4,207,562	4,422,574	942,912	1,776,128
Canada	3,673,240	4,175,868	218,847	244,309
Ceylon	167,153	42,489	358,120	334,627
East Africa	458,694	120,386	499,932	1,431,169
India	644,765	1,352,925	376,489	2,580,293
Malaya (Br)	6,694,259	3,561,652	12,165,611	18,725,622
New Zealand	—	8,723	12,822	99,337
North Borneo	754,769	955,314	213,004	421,293
South Africa	995,849	505,962	45,890	1,113,402
West Africa	—	9,350	246,353	540,667
West Indies	3,608	—	323,479	235,151
Br. Emp., Other	8,150,594	5,907,425	285,404	1,155,845
Belgium	5,703,778	448,710	473,739	998,903
Burma	715,663	2,608,258	136,662	30,233
China, North	7,382,673	8,284,214	3,363,033	7,915,260
China, Middle	1,987,485	2,393,483	1,423,723	3,335,061
China, South	16,135,876	23,330,435	6,392,637	11,778,941
Cuba	—	8,615	106,344	120,711
C. America	—	52,900	182,977	139,319
Denmark	102,425	245,155	72,833	745,516
Egypt	1,593,579	—	76,419	512,489
France	911,382	2,063,257	896,362	993,884
France	829,430	1,125,679	1,056,846	1,100,800
Fr. I. China	1,588,344	196,130	—	1,873,815
Germany	1,260,021	1,446,891	278,659	727,790
Holland	691,840	72,208	248,639	675,154
Italy	6,229,540	10,603,061	481,404	3,263,713
Korea, South	616,890	4,481,307	2,155,661	4,477,240
Korea, North	—	1,111,890	—	9,052,163
Macao	2,462,469	7,108,045	6,656,425	9,549,083
Norway	263,498	632,760	91,509	351,678
Neth. E. Indies	999,730	1,159,918	9,811,881	5,915,959
Philippines	513,822	952,489	7,437,863	5,519,849
Portugal	76,855	14,045	—	46,088
Siam	7,532,953	4,477,494	11,003,102	10,423,901
S. America	337,420	—	329,031	459,479
Spain	38,327	48,626	—	99,306
Sweden	823,554	795,682	295,617	380,414
Switzerland	2,423,156	2,666,621	1,345,589	2,001
U.S.A.	22,692,687	37,687,248	14,028,175	9,138,214
U.S.S.R.	228,008	22,150	—	—
Others	1,488,823	1,678,156	2,665,230	12,176,371
Total	131,243,468	161,595,087	92,285,353	135,454,353
Total	46,323,556	45,880,570	21,407,860	33,695,959
Total Foreign	84,919,912	115,714,517	70,877,493	101,758,294

Hongkong Commodity Markets

Cotton Spinning Mills

All local spinning mills are fully supplied with work dividing about half of their output among local knitters and weavers and the other half for exports to Oriental and East African markets. Shanghai mill owners show more interest in establishing more mills in the Colony, others would like to remove some of their equipment to safer areas considering next to Hongkong mainly Siam, Malaya and Indonesia.

Demand for cotton yarn will rise in all Far Eastern countries as the native clothing industry is gradually developing. With Shanghai conditions appearing most unpropitious for industrialists the shifting of investments to such territories which were traditionally favoured by overseas Chinese has engaged the eager attention of Chinese business men. Shanghai cotton mill owners have already invested in new enterprises in what the Chinese call "South Seas" and often they utilised their connections with Nanking Government officials to obtain funds on credit for such investments overseas.

In industrial circles of Shanghai it is reported that several prominent Kuomintang officials have also participated in overseas investments by securing credits from Government banks. The name of the former Premier T.V. Soong has been prominently mentioned in this connection. It is also Mr. Soong who has, through the banks which he controls, reportedly participated in the business of some of the local cotton spinning mills. The well-known cotton and flour mill owning Yung family of Shanghai, who have among other investments placed here also gained a firm foothold in Hongkong's industrial life by starting the Nanyang cotton mills, were reported to have been able to finance their local and other overseas enterprises by availing themselves of the very generous overdraft facilities put at their disposal by the Bank of China, the Manufacturers Bank of China etc. The Yung family, as well as some other private and Chinese bureaucratic capital, have investigated the industrial opportunities in Siam and Malaya and it is expected that a number of textile mills will be established in these and other "South Seas" territories.

Piece Goods. Piece goods were depressed during last week, and little business was done. Buyers from Siam and the Philippines were in the market again, but their orders were small and made slight difference to the prevailing prices. Tsin Leung Yuk white shirtings sold at \$43 per piece. Grey sheetings declined, mammoth

bird selling at \$42 per piece and dragon head at \$43. Drills, poplins, rayon shirtings all fell.

Artificial Silk. Prices of artificial silk rose in consequence of lowered stocks, Japanese No. 120 being almost exhausted. Italian artificial silk rose to \$3.40 per lb. The market in Canton was very active.

Yarns. Large shipments arrived, particularly of 20's. The market was well supported by buyers from Siam and Africa, though demands from India fell off. Shanghai mills were reported to have shipped over 2,000 bales direct to India. Good harvest brand 20's sold for \$1255, globe for \$1260 per bale. Prices of 32's and 40's fell slightly.

Raw Cotton. The market in raw cotton quoted higher prices. Indian cotton being hard to get, buyers turned to the American product, which at \$1.88 per lb. equalled the price of the Indian cotton.

Metals. Continued arrivals of metals from Europe kept prices down; from France alone 14,000 tons were received. The indented value for mild steel round bars, booked in October at £45 c.i.f. Hongkong, had fallen to £39. Local factories producing more than 3,000 tons a month, reduced their prices from HK\$53 to \$39 per picul. It was feared that prices might go lower with keen competition especially from France. Galvanized mild steel sheets (thin) were in demand from Canton; Belgian 3ft. x 7ft. fetched \$11.40 per piece, 6 ft. was offered at \$8.80, while British was 20 cents lower. Wire nails were dull except for small sales to North China and Korea: 1½" to 3" fetched \$58 per picul; Czechoslovakian nails rose to \$56 per picul, 2" to 4" were offered at \$55, Japanese wire nails were indented at \$50 c.i.f. Hongkong, the selling price being \$54 per picul. British steel ropes 1" rose to \$1.10 per picul, 1½" stood at 90 cents; black pipes also rose, ½" stood at 90 cents; black pipes also rose, ½" selling at 80 cents and ¾" at \$1.05; galvanized pipes 1" to 1½" were offered at \$1.40. Zinc sheets fell, Japanese sheets for forward delivery being offered at \$110 per picul; spot delivery G4 was offered at \$144, G6 sold at \$134 per picul.

Cement. Large quantities of cement of different makes were received. The market was active with demands from Swatow, Foochow, Amoy, India, the Philippines, Africa and Malaya, as well as with meeting local requirements. Shortage of supplies from the Canton factory also led to demands from that market. In view of the restriction on exports of building materials a considerable amount of smuggling takes place over sending cement out of the Colony.

Indo-China black and red dragon 1 cwt., rose to \$5.80 per bag, 94 lbs. sold at \$5.30, forward delivery fell to \$104 per ton. Japanese 100 lbs. sold at

\$5.40, but dropped later to \$5.30 per bag, with forward delivery at \$102 per ton. Formosa 1 cwt. rose to \$5.90, forward delivery rising to \$110. The official price of Green Island cement fell to \$7.30, a drop of about 50 cents, meeting a dull market the price being too high. British white cement (snowcrete) 375 lbs. nett sold at \$65 per drum, but fell later to \$64.50. Danish white cement fell from \$14.50 per bag, forward delivery being booked at \$13. American 94 lbs. fell to \$18 per bag.

Paper. Increasing demands from North China and Korea sent prices up, but heavy stocks and constant arrivals, coupled with a slight holding back over barter trade with the North as a result of the feeling that the terms upon which it was arranged were not as profitable as anticipated, prevented an increase in prices. Demands for bank note paper for China were strong. Woodfree 70 lbs. quality sold at 72 cents per lb., 80 lbs. at 85 cents, and 90 lbs. at 86 cents. Wood-free from Europe was reported to be cheaper than that from America, but the U.S. product was preferred on account of quicker delivery.

Chemicals. Sulphate of ammonia rose in consequence of lower stocks, though the arrival of about 10,000 tons was expected; elephant brand was offered at \$41 per picul and Belgian golden coin at \$43.80. I.C.I. crescent brand was out of stock, but arrivals were expected in May, which it was hoped would be in time for farmers' autumn requirements; forward delivery for May was offered at \$32 per picul. Chlorate of Potash was in demand by fire cracker factories and sold for 64 cents per lb. Caustic soda, 700 lbs., from America fetched \$175 per drum. Quebracho extract kept low on account of fresh arrivals of about 200 tons; horse head sold at \$95 per bag, elephant brand filling Korean requirements fetched \$1680 per ton. Acetic acid in barrels 400 lbs. sold at \$1.00 per lb. The arrival of a cargo of dyes to the value of HK\$1 million was reported, a large part of which would go to Korea.

Gunny Bags. Due to a slackening of demand from Africa, Formosa, North China and Siam, the market was slow; spot cargo was quoted at \$2.95 each, forward delivery at \$2.90.

China Produce. Large arrivals of vegetable oils overloaded the market and pushed prices down. Tungoil was offered at \$113.50 per picul and fell to \$110; in New York the price was reported to have dropped from US\$0.22 to US\$0.19. Teaseed oil fell to \$108 with export permit and \$96 without permit. Rapeseed oil fetched \$110 with permit and \$105 without permit. It was anticipated that prices would go lower as a result of good crops. Gall-nuts sold at \$73 per picul, notwithstanding the efforts of sellers to push prices higher. Aniseed star was offered

Industrial, Commercial & Financial Reports from Siam

The Siamese government has in hand a large programme of improvements, one being the expenditure of 3½ million baht on road repairs, as well as improvements to the botanical gardens, the public recreation ground, etc.

The sum of 48 million baht is also to be raised for the purpose of increasing the output of Bangkok's power plants to 11,000 kilowatts, as against the present output of 7,000 kilowatts. This increase in power is particularly important in view of the expected erection of a weaving factory and other industrial enterprises.

The government paper mills are asking for a 4 million baht bank loan to use for the extension of production. The loan will be drawn upon as the need arises. The original capital of the mill, about 300,000 baht is insufficient to meet current operations, as a result of increased labour costs and greater importations of paper from abroad, the local product being unable to compete in quality with the latter. The two government mills have a present capacity of 120 tons of paper a month with a peak capacity of 170 tons and it is intended not only to improve quality but also production, an output of 200 tons being aimed at. One of the mills is in Bangkok, the other in Kanchanaburi province; the latter has in addition, apart from its

own power station, a chemical plant, where chlorine is manufactured for bleaching purposes. The raw material for the making of chlorine is obtained locally, while sodium sulphate and soda ash are imported for the manufacture of caustic soda for treating timber.

The Union Bank of Bangkok Ltd. has opened in Bangkok with a fully paid-up capital of 10 million bahts, divided into 100,000 shares of 100 bahts per share. The intention of the promoters of the bank is to open branches in the provinces with a view to assisting in the progress of Siam's internal economy, trade and commerce.

Continuing its policy of nationalisation, the Siamese government sugar organisation is planning the erection of a sugar refinery near Bangkok next year, for the production of white sugar of good quality. Existing sugar refineries, whether government or privately-owned, use sulphur to rid the sugar of its yellowish appearance, but this is not successful in producing white sugar. The total production of the brown sugar plants owned by the sugar organisation is 7 million kilograms a year; the annual production of white sugar from government mills is 8 million kilograms and from private mills 22 million kilograms.

The government's income for 1948 amounted to 1,657 million baht, an all-time record, which has made it unnecessary to raise the anticipated internal loan of 183 million baht for investment requirements. Expenditures included 678.9 million baht for ordinary expenses, 987 million for extraordinary non-investment expenditures and 182 million for extraordinary investment expenditures. It is noted in the comptroller-general's report that during the present year there will be an estimated loss of 90 million from restrictions in the opium trade. The budget for 1949 is 2,121 million, with an estimated income of 1,598 million. The balance of 523 million will be raised in loans and in estimated additional income.

For the first eleven months of 1948, both imports and exports showed an increase compared with the same period in 1947. Exports amounted to 1,572,581,839 baht, against 1,202,035,389 baht for 1947 (January—November), and imports to 1,406,442,387 baht against 748,075,616 baht for 1947 (January—November). In November 1948 exports were 157,695,780 baht, against 96,354,787 baht for November 1947; and imports for November 1948 came to 131,898,464 baht compared with 125,705,819 baht for November 1947.

The main export during November 1948 was rice, shipments of which totalled 90,348,384 baht. Teak was exported to the value of 3,908,265 baht and other woods to 3,636,101 baht while tin ore was valued at 798,000 baht and rubber at 14,792,324 baht. Re-exports totalled 4,858,963 baht in value.

Goods imported by the government in November 1948 amounted to 3,159,590 baht. Imports of general merchan-

dise amounted to 127,498,218 baht, and beer, wine and spirits to 1,249,656 baht.

Following what might be regarded as a boom in foreign currencies in terms of baht on the Bangkok exchange in the early part of March, a recession took place from March 10. On March 9 the pound sterling attained the record selling price of 68.50 baht, while the U.S. dollar was sold at 22.00 baht. The decline started the following day, although prices still stood above those prevailing in the middle of February before the rise began. On March 11 the pound sterling was priced at 67.50 baht and the U.S. dollar at 21.85, whereas on February 10 the pound fetched 62.00 baht and the dollar 20.00 baht.

REPORTS FROM BURMA

Exports of teak from Burma during October amounted to 5,323 cubic tons (1 cubic ton=40 cubic feet) valued at 3,559,745 rupees compared with the January-June monthly average of 6,742 cubic tons valued at 4,656,983 rupees. Forestry activities of the State Timber Organisation are being retarded by the activities of roving bands of insurgents. In August, 38,000 teak logs moored 16 miles from Rangoon were cut loose by the insurgents; these logs floated to neighbouring villages where the people appropriated them for their own use. By the end of October approximately 24,000 logs had been recovered, and 12,000 had been written off as a total loss. At current rates of extraction, the latter figure represents approximately 17 per cent of the total annual teak production. The Burmese Government now is attempting to convoy rafts of logs to the mills in Rangoon, and also to move as many logs as possible by truck, even though that quantity will be relatively negligible. Unless these efforts are successful, the sawmills and furniture factories in Rangoon will find it increasingly difficult to maintain operations.

Effective December 27, 1948, the Government of Burma limited all money-order remittances to 40 rupees per remitter per day and prohibited the transfer of saving-bank accounts out of the country. In explaining the Government's action, the exchange-control authorities stated that in the past it was possible to remit considerable sums to India and other sterling-area countries by sending a large number of 40-rupee money orders. The impact of the new regulations may be expected to fall chiefly on foreign businessmen who may wish to export large amounts of capital. Previous action aimed at the restriction of remittances has taken the form of strict limitations on the exit of precious stones, the control of transactions in sterling-area currencies and securities, the restriction of uncontrolled normal business remittances to £100 at any one time, and the prohibition of transfer of surplus funds by the branches of overseas insurance companies. The new exchange controls reflect Burma's adverse financial position.

at \$47, but buyers counteroffered at \$42; this was a heavy decline against the price of \$80 quoted at the end of last year. Agar agar fell to \$1200.

Bristles. In consequence of uncertain conditions in North China, merchants are despatching cargoes of bristles by devious routes from Tientsin, Dairen, Shanghai, Hankow and Chungking to Hongkong for re-export, the difficulty being, however, the lack of fully-qualified expert packers in Hongkong. New York prices for bristles were quoted as: Tientsin No. 55 at US\$7.90 per lb., Chungking (black) at US\$3.65, Chungking (assorted colours) at US\$3.25. On the local market Tientsin No. 55 sold at \$39.10 per lb. equalling US\$7.46. Yunnan 2" to 3" were offered at \$9.50, but without sale, the U.S. price being US\$1.38.

Ores. Wolfram was active, meeting a demand for exports; the price was \$330 per picul. Korean quality fetched \$325, but stocks were low.

Steel for Taikoo Yard

Mr. Frank Burrell, representing Taikoo Dockyard & Engineering Co., Ltd., importers of materials for ship and engine, building and repairing, etc., as the Colony's leading builder and repairer of ships and engines, negotiates at present in the U.S. for supplies of steel for use in the shipyard. Mr. Burrell is scheduled for a visit of 9 months; New York, Philadelphia and Washington will be visited.

Trade with North China

Business with North China and Manchuria continues largely on a barter basis; bullion and foreign currencies are also accepted by some merchants who import ordinary merchandise into Tientsin, Chefoo, Chinwangtao and other Northern ports where they obtain in full or part settlement of their bills besides China produce, gold and silver bullion and, to a small percentage only, foreign exchange. Trade regulations in the North are now better known here—in our issue of March 9, p.297, import & export procedures in North China were outlined. A further statement by the authorities in Peiping, the new capital of Communist China, has now arrived which states the following:—

"Provisional Regulations For Administering Trade of North China Area with the Outside" were promulgated by the North China People's Government on March 15. Section one of the Regulations states that "Trade with the outside" means "trade between the North China Region and abroad". Trade between Liberated Areas and non-liberated areas in China will for the time being be administered in accordance with the Regulations for "trade with the outside." The North China Bureau for administering trade with the outside and its organs will execute these regulations. Section two of the Regulations states that importers and exporters of North China must apply for and receive an import and export business license from the Bureau. Foreign commercial bodies which are desirous of trading with North China and which observe the policies and decrees of the People's Government are permitted to appoint representatives or agents to trade with this area on recommendation from the Foreign Nationals Affairs Section of the People's Government and on ratification by the Bureau and may set up offices at designated places.

Businessmen of North China who wish to go abroad to do trade must apply for a permit from the Bureau. Wholesale trade between businessmen of North China and foreign commercial bodies and contracts and agreements between them must also be ratified by the Bureau.

Sections three and four of the Regulations dealing with export and import trade classifies exports and imports into two categories: ordinary and special. Belonging to the special category, permitted for export are: goods of the state-owned trading company; contributions and gifts, samples and daily necessities within 5,000 dollars (People's Bank currency) not belonging to business transactions; prohibited exports specially permitted for export.

In the special category permitted to be imported are: samples, private gifts and foreign contributions and gifts within 5,000 dollars not requiring foreign exchange; goods imported with foreign exchange abroad not to be used for export after importation.

Hongkong Traders

There continues as much interest here as ever in the expansion of business with North China, Manchuria and North Korea although the difficulties inherent in barter are fully realised. Profits have been, in the majority of transactions, higher than those obtained in other trade but the risks involved in long journeys and waiting time until the barter has been completed often result in losses on the part of local merchants. Calculations have to be made on the basis of gold in order to settle accounts to the satisfaction of buyers and sellers. Some of the commodities recently shipped to North China and their prices in gold taels are given below:—

Rubber sheets No. 1 per ton from 9.5 to 9.6 taels of gold, No. 2 sheet about 8.9 taels, No. 3 sheet about 8 taels, Caustic soda (700 lbs) 1.27 to 1.3 taels per drum, Zinc dust from 9.7 to 9.8 taels per ton, Quebracho extract from 9.9 to 10 taels of gold per ton.

Freight charges for up trips were recently ranging from HK\$ 70 to 75 per measurement ton while down freight, as demanded in Tientsin, was between \$ 85 and 110, even \$ 120 being asked in few instances.

PEIPING, THE CENTRE OF THE CHINESE COMMUNIST PARTY

On March 25, the Central Committee of the CCP and the General Headquarters of the People's Liberation Army arrived in Peiping which now has become, besides the seat of the North China People's Govt, the centre for the CCP and the Red Army HQ. The functionaries of the CCP arrived by plane and included Mao Tze-tung, chairman of the CCP Central Committee and chairman of the Military Committee, General Chu Teh, C-in-C of the army, and Central Committee members Liu Shao-chi, Chow En-lai, Jen Pi-shih, and Lin Tzu-han. Already in Peiping were the generals Lin Piao, Nieh Jung-chen and Yeh Chien-ying (the latter being concurrently mayor of Peiping), the members of the North China Government and a large number of democratic and liberal party and association leaders like Marshal Li Chai-sum, Shen Chun-ju, Huang Yen-pei, Kuo Mo-jo.

The 2nd session of the Central Committee of the CCP 7th Congress was concluded at the end of March in the vicinity of Shihchiachuang when Mao Tze-tung reported on the current situation and the outlook and policy for the future. The CCP on the eve of taking over the reins of government in China proper is looking far ahead and prepares for the gradual change-over from the present stage of "new democracy" to a socialist state. Optimism was generally expressed at the session in the fast development of China as an industrial nation once the present conflict has been brought to an end.